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ABSTRACT

The purpose of a research project was to identify employer expectations regarding entry-level competency requirements for selected assistance-level health occupations. Physicians, dentists, and other health professionals reviewed lists of competencies associated with the performance of assistance-level employees in nursing, medical laboratory, and dental services. These employers identified by title the workers who are expected to perform the competencies, frequencies with which the skills are performed, relative importance of the skills, and levels of required training associated with successful performance of the competencies. These eight job titles were investigated: nursing assistant, medical assistant, licensed vocational nurse, dental assistant, dental laboratory technician, dental hygienist, medical laboratory assistant, and medical laboratory technician. The demographic composition of the respondents in each of the three surveys was also analyzed. Following the 40-page narrative are appended materials, including (1) three quarterly reports: (2) the dental auxiliary services, nursing services, and medical laboratory services survey instruments: (3) adjusted frequencies for each competency in the three survey instruments (percentages are provided for each variable--performance requirements, use frequency, relative importance, and training requirements): and (4) a list of common (generic) competencies. (YLB)

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IDENTIFICATION AND UTILIZATION OF EMPLOYER REQUIREMENTS FOR ENTRY-LEVEL HEALTH OCCUPATIONS WORKERS
FINAL REPORT
CONTRACT #00230039

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Chapter 1

INTRODUCTION

This research project was based on a need to strengthen health occupations training program accountability through identification of employer requirements for selected entry-level health occupations. The purpose, limitations, objectives, and procedures of the project are briefly discussed.

NEED FOR THE PROJECT

According to current health work force studies (Coordinating Board, 1979; Texas Hospital Association, 1973), demand for skilled personnel in allied health occupations exceeds supply in many areas of Texas. Increasingly, assistant-level workers are required to assume responsible, technical roles in the delivery of health care services. Many training programs are based on traditional assumptions regarding the education and experience required of personnel to function in specific settings throughout health career ladders. Most programs prescribe certain competencies at each level which must be acquired by potential employees. However, the assumptions of training programs regarding requisite competencies of personnel in allied health fields should be subjected to examination in view of changing characteristics of the work force.

In addition to shortages in many health occupations, the responsibilities of assistance-level employees vary across service settings and their performances may require competencies which are not associated with their titles or included in their training. For example, dental assistants and dental hygienists often perform similar tasks requiring the same levels of competencies in their actual work settings (McClurg, 1978); however, the identified competencies associated with the design of their training programs vary greatly (Kingston & Freeland, 1971). Length of specified training for the dental assistant varies from several weeks on the job to months in secondary and postsecondary programs; on the other hand, dental hygienists complete two-year to four-year (baccalaureate degree) programs (Texas Health Careers Program, 1978; U. S. Department of Labor, 1979). Occupational analyses of the dental auxiliary occupations (See Anderson, 1973; Kingston & Freeland, 1971) indicate common competencies among dental assistants, dental laboratory technicians, and dental hygienists. Nevertheless, training programs continue to organize curricula according to traditional assumptions regarding educational requirements and credentualization of auxiliaries.

Several approaches have been employed to address the situation in which training requirements and performance expectations are incongruent. The career ladder approach (See Lavine & Moore, 1977) emphasizes increased mobility for assistance-level workers who wish to assume more responsible positions through the acquisition of additional experience and formal education. The multiple entry and exit curricula approach (Coordinating Board, 1974) recognizes work force trends and stresses the flexible, on-going design of training programs to insure upward mobility. The expanded duties approach (See LaRochelle, 1979; Whiteside, 1977) involves defining new roles for related health occupations by including new technical and independent skills for the topmost occupation and protecting the enlarged jobs through additional formal educational requirements and credentualization.

Another response to the issue of incongruence of training and actual performance involves investigation of employer expectations for entry-level health workers. An example of this approach is the Texas Dental Association's rejection of the proposals of the American Dental Association's conference on expanded auxiliary duties (Whiteside, 1977). Texas dentists opted for on-the-job training and individual employer regulation of auxiliaries within the parameters of the existing Texas Dental Practice Act. This approach best fits a tradition of vocational education, the timely preparation of potential employees whose skills are marketable in the labor force. According to this perspective, assistance-level employees should receive sufficient training to meet employer expectations or actual job requirements for entry into the allied health labor market.

Rapid advances in technology present an emerging problem for allied health training as well. Technological innovation requires personnel to become increasingly specialized. Advances in the dental laboratory, for example, have encouraged specialization among technicians, thus causing much of their training to become obsolete or superfluous. This condition led Anderson (1973) to conclude, in his interpretation of the dental auxiliary occupational analyses, that less formal education and more intensive on-the-job training may be desirable in the preparation of technicians for specialized settings. This development, which is occurring throughout the health services, directly addresses the need for determining what the current labor market expects of its new employees.

Several trends in the delivery of allied health services support the need for this research project. The current and anticipated shortages of employees in various settings, the overlap in duties among assistance-level workers, the incongruencies of training program instruction and actual performance, and the increasing complexities of the workplace influence the preparation of health occupations employees. The demands of the workplace for selected occupations should be determined by the physicians, dentists, and other health professionals who employ and supervise entry-level workers. The purposes of this project are based upon the need for applied research regarding employer expectations.

PURPOSES OF THE PROJECT

The major purpose of this project was to identify employer expectations regarding competency requirements for selected assistance-level health occupations.

Several subpurposes served to guide the completion of the competency identification.

1. To construct occupational analyses forms
2. To survey professional employers in a variety of health practice settings
3. To delineate competencies by determining their frequencies of use, relative importance, and training requirements
4. To present generic competencies as well as to rank skills among identified competencies from simple to complex

OBJECTIVES OF THE PROJECT

The objectives of the project were written to insure that project purposes were accomplished during the contract period (July 1, 1979-June 30, 1980). The objectives are listed below.

1. Construct occupational analysis forms through survey of the literature and field review of prototype instruments.
2. Complete a survey of employers regarding competency requirements for selected assistance-level health occupations.
3. Clarify competencies by determining their frequencies of use, priorities for specific health occupations, and training requirements.
4. Describe generic or core competencies as well as progression from simple to complex skills among identified competencies.

LIMITATIONS OF THE PROJECT

Several decisions affected the outcomes of the project. Although the objectives for the project were attained, these decisions limited the interpretation of the results.

1. Since the project was not funded, as proposed, during the period April, 1979-June, 1979, a thorough state-of-the-art review could not be completed.
2. The failure to fund the project during the aforementioned period also resulted in an inability to form a continuing committee for Health Occupations Training.
3. Due to the deletion of funds for program consultants, expert review of prototype survey instruments was accomplished through limited contact with a volunteer ad hoc committee.

4. Although obtaining letters of endorsement from all relevant associations may have facilitated the return of the first-round surveys, time would not permit this procedure.

5. Selected assistance-level occupations in three allied health areas--Dental Auxiliary Services, Medical Laboratory Support Services, and Nursing Support Services--were selected for investigation in this project.

The limitations of the scope of the applied research effort were appropriate, given the objectives and methods and procedures of the project.

METHODS AND PROCEDURES

This applied research project enlisted the Delphi method (See Helmer & Dalkey, 1963) as the survey technique by which consensus among employers regarding required competencies was reached. Data secured in the survey were subjected to descriptive and inferential statistical analyses. The project was organized by means of partitioning the contract period into four phases. The phases and representative tasks are included in Table 1.

TABLE 1

PHASES OF HEALTH OCCUPATIONS RESEARCH

Phase	Period	Description	Tasks
I	July 1979 - September 1979	Construction of prototype instruments	Survey relevant literature Secure relevant task listings Synthesize occupational analyses Delimit scope of project Construct prototype instruments
II	October 1979 - February 1980	Finalization of first round surveys	Field review prototypes Identify survey sample Type and print final instruments Secure mailing lists

TABLE 1 (continued)

III	March 1980 - May 1980	Acquisition and analysis of first-round data	Mail survey instruments Follow up to secure surveys Code data and punch cards Compute descriptive data* Compute inferential data*
IV	June 1980	Completion of project goals	Interpret statistics Construct tables and figures Complete unfinished tasks Write final report Print final report Disseminate project results Discuss implications

*Collectively these tasks constitute data analysis.

The tasks associated with each phase of the project are cited in Table 1 and discussed in Appendices A-C, the quarterly reports. The methods and procedures are discussed as a continuous process in the paragraphs which follow.

The initial focus of the project was the construction of prototype occupational analysis (survey) instruments. The prototypes included competency statements secured from extant task listings and reports of major research projects (e.g., the UCLA Allied Health Professions Project, the V-TECS Occupational Inventories, and the Health Services Mobility Study). The format for the instruments was devised by synthesizing approaches used in the aforementioned occupational analyses and studies. Relevant literature, including studies that employed the Delphi research technique, was reviewed. Prototypes were supplied to an ad hoc advisory committee for review and to contact persons within professional associations from whom endorsements were sought.

After securing field review information and letters of endorsement, final copies of the occupational analysis forms were typed, printed, and distributed to potential respondents. The sample was selected in a systematic, randomized manner--using computer files of association members, licensed practitioners, health service providers, and relevant professional directories. The sample was sufficiently large and systematically selected in an attempt to insure representation of employers of identified assistance-level workers in major health service or delivery settings.

The survey was designed to secure data regarding the actual performance of competencies in three occupational areas--dental auxiliary services, medical laboratory support services, and nursing support services--in relevant practice settings, including hospitals, nursing homes, private or commercial laboratories, and private offices. Reports from respondents representing employer expectations or requirements were categorized according to practice setting, type of supervision offered to assistance-level employees, geographical location of the setting, age of the employer, sex of the employer, and experience of the employer. The categories, which represented independent variables in the inferential analyses and classes in the descriptive analyses, were determined by responses on Personal Data Sheets within the survey booklets. Dependent variable data were secured from the occupational analysis forms within the surveys. Copies of the three survey booklets are included as Appendices D-F--Dental Auxiliary Services, Medical Laboratory Support Services, and Nursing Support Services, respectively.

The dependent variables in the study were frequencies associated with the reported performances of competencies for two or more assistance-level employees within each service area. Within dental auxiliary services, the occupations of dental assistant, dental laboratory technician, and dental hygienist were analyzed. Within medical laboratory support services, medical lab assistant and medical lab technician were analyzed. The investigation of competencies in nursing support services focused upon nursing assistant, medical assistant, and L.V.N. occupations. In each service area, the occupational analysis also was concerned with competency use frequencies, competency importance ratings, and competency training frequencies.

Descriptive statistics included means, adjusted frequencies, and percentages. Inferential statistical tests were limited to Chi-Square tests by means of establishing crosstabs through the use of the SPSS (Statistical Package for the Social Sciences) program option. These tests were conducted to elaborate the findings of the study with regard to matters associated with curriculum design.

ORGANIZATION OF REMAINING CHAPTERS

Literature which supports the need for the project and the design of the study is contained in Chapter 2. Methods and procedures used in all phases of the applied research are presented in Chapter 3. Data acquisition and analyses constitute Chapter 4. Finally, conclusions, implications, and recommendations comprise Chapter 5.

Chapter 2

REVIEW OF RELATED LITERATURE

INTRODUCTION

Vocational education by its very nature has depended upon occupational analysis, competency-based training, and survey research to develop programs and curricula. In order to provide students with marketable skills in the world of work, vocational educators must be concerned with the actual tasks required for satisfactory performance in occupations for which there exist sufficient demand in the workplace. Reviews of the well-developed approaches of occupational analysis and competency-based education are beyond the scope of the present report. However, literature related to health occupations training and application of the Delphi technique in applied research were considered in the proposal and design of this project. The relationship between occupational analysis and curriculum development was also relevant to the study.

LITERATURE RELATED TO HEALTH OCCUPATIONS

Growth and diversification of health occupations is a definitive characteristic of health services delivery. Technological innovation, advancement in basic sciences, expansion of allied health fields, and demand for rehabilitative and preventive care have contributed to the vitality of health careers (Junge, 1975; Loe & Rogers, 1974; U. S. Department of Labor, 1979). Beginning with the development of practical or vocational nursing programs in the 1950's, technical, vocational, and paraprofessional health careers quickly evolved to meet the work force needs of health service institutions (Holloway & Kerr, 1969). Although training programs initially emerged in the health service settings (e.g., hospitals, clinics, and laboratories), there has been a trend toward health occupations training in regional institutions, usually community colleges (Junge, 1975; Loe & Rogers, 1974). Recently, health occupations education has emerged in the secondary school (Junge, 1975). Health occupations preparation, especially at the assistance level, has tended to emphasize cooperative training, integrating formal education with on-the-job experience.

As allied health education shifted from hospitals and other service settings to educational institutions, the community college assumed an increasingly important role in interpreting trends and community needs (Loe & Rogers, 1974). Planning in the colleges reflected analysis of regional supply-demand relationships, socio-demographic variables, and emergent interests in the community. While community college allied health education has been very responsive to the needs of its constituents and the health professions, there is the obvious tendency to emphasize formal educational requirements, occasionally at the expense of on-the-job experience. Addressing the issue of appropriateness of training in health occupations, Loe & Rogers (1974:51) identified several relevant factors.

> *Each occupation should be reviewed individually considering carefully the relative need for the occupation, the complexity of skills required, the responsibility for human health, the cost of training, the career needs of workers in the occupation, and the impact on the cost of medical care.*

Secondary school health occupations education developed as a result of the consideration of the aforementioned factors--i.e., the awareness that assistance-level workers could be trained efficiently in high school programs.

Health Occupations Education (HOE) programs, approved by the Texas Education Agency, are geographically distributed throughout high schools in the state. These programs, like community college training, address regional needs as well as interests of students. In addition to preparing students for entry-level employment in assistance- or supportive-level occupations--e.g., dental assistant, dental laboratory technician, medical laboratory assistant, and nursing assistant--the programs offer students opportunities to explore health careers and plan advancement to more technical and responsible positions.

Currently, training of assistance-level health workers occurs on the job in secondary school HOE programs and in postsecondary certificate and degree programs. In order to expand the professional base of the various occupational areas (such as nursing) and to address the demand for skilled workers, the trend in training has been toward increasing formal education at all levels. However, individuals trained on the job or in secondary schools can perform adequately in many settings. Expansion of assistance-level functions, associated with calls for additional education, seems to address a variety of needs: regional demand, specialization, career development, and recruitment. However, the expansion of roles is a matter of fact rather than a proposal or a by-product of increased training requirements.

In the nursing occupations, 60 percent of all nursing functions are performed by all levels of employees from nursing assistant through registered nurse (Anderson, 1972:123). McClurg (1978) corroborated this finding and identified shared competencies among assistance-level workers in dental auxiliary and medical laboratory services as well. Several explanations of this overlap phenomenon have been offered.

Often, common competencies are used to define the fundamentals of a particular field which, in turn, become the core curriculum for the training program (Anderson, 1973; Coordinating Board, 1974; Kingston & Freeland, 1971; Lavine & Moore, 1977). Differentiation of occupations within a field is based upon the association of additional, more complex skills with the task functions of occupations that are increasingly higher on the career ladder. While this is an excellent approach to curriculum development, articulation between training levels is essential to the efficiency of the training model. When training is not well articulated--a major problem which has received much attention (See Anderson, 1972; Junge, 1975; Loe & Rogers, 1974)--

workers in various health occupations become "undereducated" or "overeducated" in certain settings. For example, baccalaureate training was assumed to prepare Registered Nurses (RN's) for higher, more responsible levels of performance. However, RN's trained in hospitals and those trained in community colleges perform the same functions; and licensed vocational nurses also perform these functions, with the exception of six skills reserved "exclusively" for the RN (Anderson, 1973:123). In addition, there is insufficient information regarding the functions of nursing assistants and licensed vocational nurses outside hospital settings. Common anecdotal reports assign numerous complex tasks associated with professional nursing to assistance-level employees in such settings as clinics and nursing homes. The aforementioned events occur in many service areas in spite of legal restrictions (such as licensing and registration), articulation plans, and career-oriented curricula.

The issue is not a question of "under education" or "over education," terms associated with assumptions regarding training and professionalization. The key issue is a question of the utilization of employees in actual work settings. Occupational analyses and task inventories have been used to address this issue.

LITERATURE RELATED TO OCCUPATIONAL ANALYSES

Applied research using occupational analysis typically takes into consideration one or more of the following factors: performance or nonperformance of the task, performance frequency with respect to the task, degree of supervision required to perform the task, time required to perform the task, experience required to perform the task, training required to perform the task, complexity of the task, relative difficulty of the task, criticality of the task, and importance of the task to the occupation being analyzed (Anderson, 1973:13). A variety of studies has included many of these factors in task analyses of health occupations.

The Allied Health Professions Project (AHPP) was initiated in 1968 by the University of California at Los Angeles (See Anderson, 1973). This exemplary project used occupational analyses of selected health occupations to construct curricula and instructional materials, propose articulation between educational levels, and provide training support from preemployment through inservice and continuing education. A research and development procedure consisting of ten steps was described by Anderson(1973:6).

1. Identify, list, and classify all possible tasks within the functional area described. (The result is the Task Inventory.)
2. Verify the tasks through a survey or field test to determine the appropriateness of the task list to the occupational category being studied. (The result is the Occupational Analysis.)
3. Determine the processes involved in the performance of the tasks and determine the knowledges and skills required for satisfactory accomplishment of each task. (The result is a Job Operation Breakdown for each task.)
4. Develop behavioral objectives or performance goals, based on the performance and knowledge identified in the Job Operation Breakdowns.
5. Develop a curriculum, based on specific employment goals of a specific occupational category, such as nurse's aide, licensed vocational nurse, or registered nurse.
6. Develop innovative instructional materials and instructor manuals in modular form to implement the course in the curriculum.
7. Test instructional materials in the instructional setting, preceded by inservice teacher education in their use where practical.
8. Evaluate student performance by measuring the attainment of behavioral objectives.
9. Produce or get others to produce the instructional materials.
10. Distribute or get others to distribute instructional materials.

The successful completion of the developmental research project depends upon the validity of the occupational analyses.

While the purpose of each occupational analysis was to form a basis for curriculum development, the task inventories were constructed in a manner that facilitated surveying the actual performances of workers--without prejudgment of the specific occupational levels. Workers in identified jobs within broadly defined functional areas (e.g., nursing occupations) received task inventories in the Allied Health Professions Project (AHPP) occupational analyses. These workers indicated the tasks they performed, the frequency of performance, the criticality of tasks, and the amount of supervision. Advisory committees consisting of experts in the respective fields provided other dimensions of task performance including cognitive levels of performances and suitability of the tasks to occupational levels (Anderson, 1973:68). An excellent example of the efficiency and precision of the AHPP occupational analysis approach is provided by their study of nursing occupations (Goldsmith et al., 1975). Twenty-three task inventories (Allied Health Professions Publications, 1979) have been produced to date by the UCLA project.

The Allied Health Project of Educational Projects Incorporated (Byers et al., 1973; Byers & Novak, 1972) expanded the work of the UCLA Allied Health Professions Project (See Anderson, 1973) by conducting functional analyses with specific attention to curriculum design. The project systematically analyzed duties, tasks, and elements associated with jobs in nursing, respiratory care, and radiology. Analyses were conducted through surveys of employees and yielded information related to required competencies and training. The review of the state-of-the-art in task analysis (Byers et al., 1973) was a notable contribution to the literature.

The Vocational-Technical Education Consortium of States (V-TECS) used a similar approach to develop their catalogs or curriculum resources in health occupations domains. V-TECS investigators completed research and development projects for a variety of health occupations, including nursing assistant, dental assistant, licensed practical nurse, and medical assistant. State-of-the-art reviews were conducted to identify tasks performed in specific domains. Next, an occupational inventory for a specific job was developed to be completed by incumbent workers in the selected occupational area. Performance data secured through the survey were later translated by writing teams to objectives and standards, guides, indices of duties, and related information concerning the domain of the occupation. The state-of-the-art report in medical assisting (Cave & Hill, 1974) and the resulting occupational inventory are representative of the work conducted by V-TECS. Several of the occupational inventories and the Guidelines for Developing Job Inventory Task Booklets (Netrick, 1974) were important references in the present project.

Another major study using occupational analysis methodology to address program and curriculum issues was the Health Services Mobility Study (See Lavine & Moore, 1977). Beginning with a study of diagnostic radiology, the project developed a job analysis methodology that involved describing tasks in specific jobs, scaling identified tasks for skill and knowledge requirements, arranging tasks in groups by means of factor analysis, and designing job and educational ladders. Applications of the methodology included identifying job tasks and training required at different levels, describing and evaluating job performances, and developing criterion-referenced tests. Gilpatrick (1977) described in detail the Health Services Mobility Study approach to task analysis and curriculum design.

A Health Occupations Competency Survey (Whitman et al., 1973), though restricted to New York, provided some direction for the present study. The project investigated entry-level competencies expected by supervisors and opportunities available in the state for several health assistance occupations. The occupations, which include nurse assisting and medical/dental assisting, were targeted for survey analysis due to their potential for future employment growth. An integrated questionnaire and interview procedure was used to secure data from employers in the occupations selected for the survey. Poor skills training and deficient communications skills were problem areas identified by the survey. Training in understanding instructions and medical terminology were found to be important. Although the format and content of the survey did not significantly contribute to the design of the occupational analysis instruments in the present project, the study suggested that employers are appropriate respondents for inventories of employee entry-level competencies.

A study conducted by the Texas Dental Association (Whiteside, 1977) also surveyed employer perceptions of duties assigned to auxiliary personnel. The results of the survey supported the Texas Dental Practice Act with one exception, but failed to support the proposals of the American Dental Association, which conducted a similar investigation of expanded duties for auxiliaries. The study pointed out one important fact: Texas dentists held views different from many professionals in the field who favored peer regulation, job enlargement, and increased formal education. The results of the survey indicated that dentists were satisfied with on-the-job training and indirect supervision of auxiliaries in their employment. Since the attitudes of practicing dentists may be shared by other health professionals who may not favor increased regulation and duty expansion as readily as employees, employers of assistance-level personnel were selected as respondents in the present project.

SUMMARY

Based on a survey of the literature, assistance-level occupations in dental services, medical laboratory services, and nursing services were selected for occupational analysis. The analyses were conducted in this project by presenting survey instruments--composed of competency statements derived from task inventories validated in major studies--to potential employers of workers in the targeted occupations. As in the large-scale projects which were reveiwed, various dimensions of the competencies were explored in order to address issues related to program design and curriculum development. However, the project was not intended to test training assumptions such as the "undereducation" of assistance personnel. Rather, the applied research attempted to identify key features of the actual performances of employees in various settings as perceived by potential employers of trainees.

Chapter 3

DATA COLLECTION PROCEDURES

INTRODUCTION

This research project was based on a need to strengthen health occupations training programs accountability through identification of employer requirements of performance skills in selected entry-level health occupations. Identification of these requirements was made by surveying health employers in a variety of health practice settings. The data collection procedures throughout all phases of the project are reviewed.

PHASE I

July-September, 1979

The preliminary activities undertaken at the beginning of the contract period involved a state-of-the-art search to secure relevant studies regarding the nature of training in health occupations education. The broad areas selected for review included the following: occupational research to identify job descriptions for certain health care workers, training programs that articulate student competency development between the secondary and postsecondary levels, studies that have employed the Delphi research that has centered on employer expectations for new employees. Also, task (or occupational) analyses were secured from research studies, associations, and consortia to ensure a comprehensive state-of-the-art (SOA) investigation and to provide examples of surveys for constructing prototype instruments.

Through the recommendations and support of Texas Education Agency personnel, eight job titles were selected for investigation. The criteria for job title selection invluded classification of the position as entry-level, the number of students receiving training for the position, and the criticality of manpower shortages for these workers in health care settings. The eight job titles selected were grouped under three broad support areas for functional categorization and are included in Table II below.

TABLE 2

SUPPORT AREAS WITH RELATED JOB TITLES

Support Area	Job Titles
Nursing Services	Nursing Assistant Medical Assistant Licensed Vocational Nurse
Dental Auxiliary Services	Dental Assistant Dental Laboratory Technician Dental Hygienist
Medical Laboratory Services	Medical Laboratory Assistant Medical Laboratory Technician

During the literature review and acquisition of validated occupational analyses, several concerns were identified that seemed central to all health care worker research--namely, which employees actually perform the competencies, how often they engage in these activities, the degree of importance that is attached to the skill in relation to the overall requirements for workers, and the educational level at which students can receive training in the particular skill area. Rather than exclude a vital variable in the research, all factors were included for data collection.

While the prototype instruments were being constructed from validated occupational analyses, it became apparent that the size of each questionnaire would be large, due to the specificity of the competencies listed. It was felt that the length of each survey instrument would be detrimental to the return rate by respondents since an exhaustive survey instrument would be completed by fewer respondents. However, because an exhaustive survey instrument would yield a large amount of detailed information, the basic structure of the instrument remained as originally developed.

PHASE II

October, 1979-February, 1980

As the prototype instruments were printed, contacts were made with health professionals and educators across the state to solicit their assistance in field reviewing the survey instruments. During September, 1979, meetings were held with various health professionals in Austin, Texas, to explain the project, examine the survey instruments, and elicit feedback. The meetings and ensuing discussions significantly contributed to the revision of the survey instruments and to the delimitations of the actual project.

Other health professionals, including instructors, were contacted and they agreed to review the prototype documents. The comments received from these professionals reinforced the original opinion that the length of the surveys would discourage a successful return rate. However, since a high degree of specificity would be required in order to develop meaningful curriculum materials, the project staff adhered to the decision to use an exhaustive survey instrument.

Procedures for identification of a sample population were developed with the aid of Mr. Carl Hardin, Texas Board of Dental Examiners, Mr. Tex Roberts, Texas Osteopathic Medical Association, Mr. Michael G. Young, Texas Medical Association, Dr. Jeff McCalley, Texas Department of Health, and Mr. John Haddad, Texas Hospital Association. Due to the varying nature by which professional associations and/or state organizations register members, differing sampling procedures were utilized with each listing. A systematic sampling procedure was used to select a representative population of dentists, doctors of osteopathy, and commercial laboratories. Physicians were selected by the Texas Medical Association from a computerized listing of its membership, using a stratified random sampling procedure. In addition, all accredited hospitals and related institutions were included in the population surveyed.

During this same time, efforts were directed toward securing letters of recognition and/or endorsement from the various professional organizations. Repeated meetings were held with officials from the Texas Dental Association, Texas Medical Association, Texas Osteopathic Medical Association, Texas Hospital Association, and the Texas State Board of Dental Examiners. The purposes of the meetings, conducted both in person and by telephone, were to explain the nature of the project, to offer prototype survey instruments for review, and to request support in the investigation from those organizations contacted. The two letters of support that were received are included in Appendices E and F. Permission was obtained to reproduce those letters as a part of the final survey instruments that were sent to doctors of osteopathy, medical doctors, and hospitals throughout the state.

PHASE III

March-May, 1980

Initial work during this period centered on mailing the survey instruments. Due to the expense involved in sending a large number of survey instruments, the inventories were mailed at bulk rate. Using this class of mail, however, did not provide assurance that each addressee would receive the survey instrument. Bulk-rate mail is not forwarded to a current address nor is it returned to the sender if the address is incorrect. Consequently, with the highly mobile nature of society, it is reasonable to assume that a substantial number of instruments never reached their intended destinations, and it was impossible to determine who received the surveys. However, the initial mailout was purposely large so that a sufficient number of health professionals would receive and complete the inventories. Table 3 provides a breakdown of the number of surveys mailed.

TABLE 3

DISTRIBUTION OF SURVEY INSTRUMENTS

Recipient	Instrument Sent Nursing Services	Medical Laboratory Services	Dental Services
Physicians	1000		
Dentists			1500
Doctors of Osteopathic Medicine	100	100	
Commercial Laboratories		750	
Hospitals	815	562	
Totals	1915	1412	1500

Three weeks after the initial mailing, a follow-up letter was sent to a systematic sampling of the total survey population who had not responded. Several inquiries were received as a result of the follow up, primarily to inform project staff that they (the recipients) had never received the original instruments. Consequently, additional survey instruments were mailed first class to these individuals.

After the original mailout, meetings were held with East Texas State University computer center personnel to design a keypunching format for coding the returned instruments. Due to the size of the survey instruments, a considerable amount of time was spent transferring the survey data to coding sheets. Several program options were made available for use in the form of descriptive as well as inferential statistical techniques.

Because the data received in the areas of training and performance requirements would be used to develop curriculum in health occupations education programs, actual and adjusted frequencies for each competency listed in the three survey instruments were used to show the significance of the responses. Additionally, a variety of inferential statistical tests were available to handle the demographic variables of each respondent. The crosstab procedure was selected to provide tables showing the relationship of selected demographic factors to the performance and training requirements. Those demographic variables selected as most important with respect to the responses included the respondent's professional training, professional practice setting, and degree of supervision over the employees. The Chi Square test of independence was used to determine any significant differences within a single cell of responses against each demographic variable.

The final count of survey instruments delivered to the computer center for keypunching and data analysis included 147 Dental Services, 162 Medical Laboratory Services, and 156 Nursing Services. Even though this return rate was extremely low (less than 10 percent), sufficient replies were received to allow representative information to be drawn from the investigation.

PHASE IV

June, 1980

Time spent during this phase of the study centered on the analysis of the results of the survey as well as on compiling information to be used in the comprehensive final report.

At the same time, professional health educators at the Occupational Curriculum Laboratory, East Texas State University, used the results of the surveys to update and revise existing instructional materials and to draft outlines for future individualized resource materials for the occupational titles covered in the investigation. The curriculum development activities are intended to provide occupationally relevant materials validated by empirical research.

Chapter 4

DATA ANALYSIS

INTRODUCTION

This investigation was based on the need to secure information regarding employer requirements for entry-level health occupations employees. Eight job titles categorized under three broad allied health support areas were studied to determine performance requirements, use frequency, importance, and training requirements for validated competency statements. An analysis of the respondents' demographic composition as well as their responses is discussed.

CHARACTERISTICS OF RESPONDENTS

Each respondent was requested to complete a personal data sheet prior to completing the competency listing. The information sought was similar for each of the three survey instruments (See Appendices D-F). While the majority of the data requested was job specific, several items were of a personal nature; consequently, the respondents had an option as to whether or not to complete these questions.

Dental Auxiliary Services

The personal data items analyzed for those respondents completing the dental survey instruments were questions 4, 5, 6, 8, 9, and 10. These items were felt to be most important in the consideration of how they responded to the competency listings.

Question Four. This item requested the length of time respondents were in their present positions. The experience range was from 1 to 35 years, with the largest single group of respondents (28.1 percent) indicating 10 years of experience in their present positions. Those individuals having less than 10 years of experience constituted 32.3 percent of the total number of respondents. Respondents having more than 10 years of experience in their present positions constituted 39.6 percent of the total population answering the dental survey.

Question Five. The age of the respondent was requested in this question. The respondents ranged from 28 to 59 years of age. Over 10 percent (10.1) of the employers were 35, while 23.2 percent were below that age and 66.7 percent of the employers were over 35 years of age.

Question Six. This item requested the sex of the employer. Males constituted 70.6 percent of the employers sampled, while females comprised 5.9 percent of the sample. Surprisingly, 23.5 percent of the total sample did not indicate sex.

Question Eight. The nature of the employer's training in the dental area was sought in this question. Eleven percent of the respondents had no dental training, 4.9 percent received training on the job, over 17 percent had completed a certificate or diploma program, and 12.2 percent had associate degrees. The remainder of the respondents, or 54.9 percent, had post-baccalaureate degrees.

Question Nine. This question addressed the professional practice setting of the respondents. The vast majority, or 80.8 percent, of the employers were in private practice, while the remainder were in a hospital training setting. Curiously, 14.1 percent of those surveyed did not answer this question.

Question Ten. This question addressed the type of supervision the employer used with the dental employees analyzed in the survey. Over 70 percent of the respondents specified close supervision and involvement in the evaluation of the employee's performance. Only a small percentage, or 12.5 percent, maintained close supervision but were not involved in the evaluation of the employee's performance. The remaining respondents exercised occasional or no direct supervision of the employees.

Nursing Services

The same personal data items that were examined for the respondents in the dental area were analyzed for the respondents of the Nursing Services survey instruments. Again, the same questions were felt to be most important when examining response patterns throughout the list of competencies.

Question Four. Regarding the length of time respondents were in their present positions, responses ranged from 1 to 36 years. The mean amount of experience for all respondents was 7.040 years. However, 46 percent of the respondents had worked 2 years or less in their positions, and 80 percent had less than 10 years of experience in their present positions.

Question Five. The age range of the respondents was from 28 to 69 years, with the mean age being 45.688 years. Over 14 percent of the respondents failed to disclose their age. The largest single age group was 39 (10.4 percent). Using adjusted frequencies, the age of over half of the respondents was 42 years or younger.

Question Six. Regarding the sex of the respondents, 34.6 percent were males, while 65.4 percent were females. Only 4 respondents completing the survey for nursing services failed to identify their sex.

Question Eight. The type of training the employer received in the nursing area was requested in this question. Of the total respondents, 13.7 percent indicated on-the-job training, 23.5 percent indicated that they had completed a degree or certificate program, and 17.6 percent responded that they had received an associate degree. In addition, 23.5 percent had baccalaureate degrees and post-baccalaureate degrees were held by 21.6 percent of the respondents. Finally, none of the respondents indicated that they had received no training in the occupational area surveyed.

Question Nine. This item sought information regarding the health practice setting of the respondents. Most of the respondents were employed in a hospital setting (72.5 percent), while 21.6 percent indicated they worked in a nursing home. Only 2 percent indicated they were employed in a private or commercial laboratory. Finally, 3.9 percent of those responding were employed in a private practice.

Question Ten. Regarding the degree of supervision over the employees surveyed, 66 percent closely supervised and were involved in the evaluation of the employee's performance. Only 3.8 percent of the respondents indicated close supervision but no involvement in employee evaluation, while 9.4 percent indicated occasional supervision and involvement in employee evaluation. Additionally, 11.3 percent said they did not directly supervise the employees being analyzed but were responsible for their performance evaluation, and 7.5 percent indicated that they neither directly supervised nor were involved in the performance evaluation process.

Medical Laboratory Services

The demographic information examined for the dental and nursing areas was also treated in the medical laboratory area. The information was deemed appropriate when examining the responses of the health professionals.

Question Four. The range of experience of the health professionals responding to the occupations analyzed was from 1 to 33 years. Over 50 percent of the respondents had less than 5 years' experience in their present positions, and 26.8 percent had 1 year or less experience in their present positions. The mean score of 6.786 years of experience included those respondents who failed to respond to this question.

Question Five. The age of the respondents in the medical laboratory services area ranged from 23 to 62 years. The mean age of the population was 39.036 years, with the largest single group (10.7 percent) being 40 years of age.

Question Six. With respect to the sex of the respondents, 44.3 percent were male and 55.7 percent were female. Only 3 respondents failed to disclose their sex.

Question Eight. This question asked for the type of training the respondent experienced. Only 6.7 percent indicated that they had received their training on the job, while 8.3 percent had completed a degree or certificate program, 10 percent had an associate degree, and 60 percent possessed the baccalaureate degree. Finally, 15 percent of the respondents had obtained post-baccalaureate degrees.

Question Nine. Regarding the professional practice setting of the respondents, 72.9 percent were in a hospital setting, while 18.6 percent were employed in private or commercial laboratories. Only 8.5 percent were employed in a private practice environment.

Question Ten. In describing the type of supervision the respondents maintained with the employees analyzed in the survey, 75 percent indicated that they closely supervised and were involved in the employee's performance evaluation. In addition, 19.7 percent indicated occasional supervision, while 5.4 percent indicated no direct supervision over the employees in the occupations being analyzed in the survey.

FREQUENCY OF RESPONSES

Due to the size of each of the survey instruments, it is impossible to present an individual analysis of each competency within the three separate instruments. For simplistic purposes, each survey instrument will be treated in a generalized fashion.

Dental Auxiliary Services

The adjusted frequencies for each competency in the dental survey instrument are presented in Appendix G. Percentages are provided for each variable considered an integral part of the survey instrument; namely, performance requirements, use frequency, relative importance, and training requirements.

There is a clear delineation of responsibilities in line with the job titles in the "Performance" section of the dental services survey instrument. For the dental assistant, this is apparent in competency statement 263 (See Appendix G) where 81.0 percent of the respondents felt that it is primarily a dental assistant's responsibility to "Aspirate during oral surgery." This delineation is also apparent for dental laboratory technicians. In item 149 (See Appendix G), 34.8 percent of the respondents indicated that it is the responsibility of the dental laboratory technician to "Make individual surgical tray for immediate denture." Although 60.9 percnet responded that no one performs this competency, this undoubtedly indicates that dentists perform the responsibility in their private practices. Responses to item 367, "Remove supragingival calculus," reveals that 48.5 percent of the respondents felt that this competency is primarily performed by the dental hygienist.

In general, results in the "Use Frequency" section indicate that the vast majority of the competencies are performed either weekly or daily. The competencies that are performed either monthly or infrequently are administrative and related responsibilities not immediately involved with direct patient care.

Results in the "Importance" column indicate that nearly all of the competencies have some or much importance to the overall responsibility of employees working in the three occupations analyzed.

In the "Training" section of the survey, the majority of the respondents indicated that a large number of competencies can be learned on the job (See item 68, Appendix G). For these same items, it is the dental assistant who is most likely to be responsible for the task. In many of the other items (See item 102, Appendix G), respondents indicated that training for the skill can be accomplished either on the job or in a secondary school. For those items that are primarily the responsibility of dental laboratory technicians or dental hygienists, respondents felt that training should be received at the postsecondary level (See items 179 and 230, Appendix G).

Nursing Services

Appendix H presents the adjusted frequencies for all of the competencies within the nursing services survey instrument. The four variables--performance, use, importance, and training requirements--have been treated independently; consequently, the percentages relate to each variable rather than to the total number of conceivable responses for each competency listed.

For the competencies listed in the nursing services survey instrument, there is a marked delineation in the competencies respondents assigned to various employees. For example, in item 36, "Assist patient in dressing and undressing," 50 perdent of the respondents felt the nurse aide should perform the task. However, in item 68 (See Appendix H), 34.6 percent of the respondents considered it a nursing assistant function, while 28.8 percent of the respondents felt it should be performed by an LVN. For only a few items did the respondents feel that the competency was primarily a function of a medical assistant (See item 3, Appendix H). Regarding the level of performance for LVNs, respondents felt that they (LVNs) were primarily responsible for performing more technical skills (See item 216, Appendix H). Finally, in many instances, the professionals indicated that another employee, presumably a registered nurse, should be expected to carry out the task.

In general, results in the "Use Frequency" section of the survey instrument indicate the vast majority of competencies are performed weekly or daily. The competencies that are performed either infrequently or monthly are related responsibilities not directly involved with patient care. Again, results in the "Importance" column indicate that nearly all the competencies have some or much importance to the overall responsibilities of employees working in the three occupations analyzed.

In the "Training" section of the survey, the majority of respondents revealed that a large number of competencies should be learned on the job (See item 71, Appendix H), regardless of the stated position. However, on other items, such as item 125, Appendix H, "Prepare and give between-meal nourishment of liquids," it was felt that training should be provided either on the job or at the secondary level. In other cases (See item 32, Appendix H), respondents felt that training for mastery of the competency should be conducted at the postsecondary level either in a degree or certificate program. In these same instances, the task was expected to be performed by an L.V.N. or other employee (presumably an R.N.).

Medical Laboratory Services

Adjusted frequencies are provided in Appendix I for each of the competencies included in the medical laboratory services survey instrument. Each variable is treated independently so that the percentages listed should be treated with respect to the identified factor rather than the total number of possible responses for the competency statement.

For the two occupations analyzed in the medical laboratory services instrument, several noteworthy items arose. Respondents revealed that in only a few instances the stated competency should be performed primarily by a medical laboratory assistant. For example, item 53, "Collect blood specimens from the patients," (Appendix I), 50 percent of the respondents felt a medical laboratory assistant should be expected to perform the competency. In the vast majority of cases, respondents indicated that stated competencies are performed by the medical laboratory technician (See Appendix I). In those instances where the sampled health professional felt that another employee is expected to perform the required skill, it is presumed that the designated employee is the medical technologist. For example, for item 267, "Assist in resolving patient complaints," 32.8 percent of the respondents felt that the "other" employee is expected to perform the competency. In those cases where no one is expected or required to carry out the responsibility, it can be assumed that the attending physician performs the skill rather than subordinates or that the particular test or procedure is not used in their practice settings.

In general, results in the "Use Frequency" section reveal that the vast majority of the competencies are performed either weekly or daily. The skills that are performed either monthly or infrequently are not directly involved with direct patient diagnosis or treatment. Results in the "Importance" column show that nearly all the competencies have some or much importance to the overall responsibilities of employees working in the two occupations analyzed (See Appendix I).

The last section of the survey instrument, "Training," reveals where the respondents felt training should occur. In the majority of the cases, it was revealed that the appropriate level of training needed by an individual to perform the stated competencies was the postsecondary degree or certificate program (See Appendix I). In several instances, on-the-job training was the preferred level. For example, for item 253, "Maintain files of laboratory records or reports," 42 percent of the professionals indicated that training for this competency is more appropriately taught on the job. Rarely did respondents feel that training was appropriate at the secondary level (See items 265, 266, Appendix I). However, in items 265, 266, respondents clearly indicated that they did not expect a medical laboratory assistant or technician to perform the skills.

RELATIONSHIP OF RESPONDENT PERSONAL DATA TO COMPETENCIES

To facilitate the application of the results of the survey, additional data analysis was conducted during June, 1980, for the guest writers at the Occupational Curriculum Laboratory, East Texas State University. A concern was expressed for information on the relationship of several demographic variables to each individual competency addressed. The demographic information requested most frequently were the nature of the training of the respondent, the professional practice settings in which they work, and the type (or degree) of supervision they exercise over the employees they analyzed in the survey instrument.

Crosstabs were programmed through the use of the SPSS program option at the Computer Center, East Texas State University. This procedure provided the instructional personnel with weighted factors that would have influenced the responses of the sample population. Such detail was seen as needed to provide additional information for curricular decisions.

SUMMARY

Data analysis consisted of examining the demographic composition of the respondents in each of the three surveys. Adjusted frequencies were computed for each of the four variables considered under each competency listed. Additional analysis in the form of crosstabs was employed to weight selected demographic information for each competency within the three survey instruments.

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Chapter 5

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

INTRODUCTION

The purpose of this applied research project was to determine the entry-level competencies that are expected of health occupations workers by professional employers in a variety of practice settings. Specifically, lists of competencies associated with the performance of assistance-level employees in nursing, medical laboratory, and dental services were reviewed by physicians, dentists, and other health professionals. These employers identified by title the workers who are expected to perform the competencies, the frequencies with which the skills are performed, the relative importance of the skills, and the levels of required training associated with successful performance of the competencies. The data were processed at the East Texas State University Computer Center.

CONCLUSIONS

The following conclusions were drawn from the investigation.

1. The majority of dental respondents had more than 10 years of experience in their present positions. They were primarily males over 35 years of age, more than half had post-baccalaureate degrees, and the vast majority were in private practice. Finally, the respondents seemed to exercise a great deal of close supervision over the employees whose occupations were analyzed in the investigation.
2. Nursing services respondents generally had less than 10 years of experience in their present positions, were predominantly female, and were over 42 years of age. Their formal training in the allied health area was equally

distributed among diploma, degree, and certificate programs. The work environment of most of the respondents was a hospital setting, and they maintained a close degree of supervision over the employees for whom they were responsible.

3. In medical laboratory services, the majority of respondents had less than 5 years of experience in their present jobs. They were 39 years of age, female, and possessed at least a baccalaureate degree. Their work setting was primarily in a hospital, and they maintained a close degree of supervision over the employees being analyzed.

4. For dental auxiliary services, there is a clear delineation between the three occupational areas. Most competencies are performed weekly or daily and felt to be important by the employers. On-the-job training is where employers feel that employees can usually receive appropriate training. However, when dental laboratory technicians or hygienists are expected to perform specified competencies, postsecondary is preferred. This is consistent with Texas state laws governing the training for these two occupations.

5. Nursing respondents showed a marked differentiation in the responses to each item. Medical assistants are usually responsible for performing only a few skills, nursing assistants are primarily expected to perform lower level tasks, and LVNs are concerned with more technical aspects of patient care. Additionally, highly specialized competencies are the responsibility of other employees, presumably registered nurses. Most competencies are performed daily or weekly and given some or much importance. A great many of the competencies should be learned on the job, while some can be mutually covered on the job or in secondary schools. Tasks expected of LVN's are felt to be the training responsibility of postsecondary institutions.

6. Finally, employer respondents in medical laboratory services expect medical laboratory technicians to perform the majority of stated competencies. Another employee, presumably a medical technologist, is required to perform more specialized skills. Competencies are primarily performed weekly or daily and carry some or much importance by employers. The majority of these respondents indicated that postsecondary instruction is the required level of training for most competencies, although on-the-job training is more appropriate in certain instances. Laws governing the training of medical laboratory technicians prescribe required postsecondary instruction.

RECOMMENDATIONS AND IMPLICATIONS

Based on the findings of this study and conclusions drawn, the following recommendations are presented for consideration:

1. Results of the study should be presented to educators concerned with the training of students for the identified occupations. The results can provide valuable information regarding the delineation of competencies by occupational titles and those competencies that are common to several job titles. In constructing each of the survey instruments, it was apparent that several competencies identified and drawn from validated research were common to the 3 survey instruments. Appendix J provides a listing of the 45 common or generic competencies.
2. To provide for quality training, educators at the secondary and postsecondary levels should examine the data in order to update and revise existing courses of instruction. These same professionals should mutually agree on which competencies can be more appropriately handled at the high school level and which should be reserved for the postsecondary level of training.

3. Because of a wide range of responses on certain items, close examination should be made of those competencies in the 3 survey instruments where no preferred level of training is indicated. Current training programs can then be redefined, based on current empirical evidence.

4. To reflect a more viable approach to health care training, individuals involved in the licensure and credentialization of certain job titles should examine survey results in light of current laws and regulations. Such examination might reveal unnecessary and outdated requirements.

5. Due to the comprehensive nature of each survey instrument, a continuing ad hoc committee should be formed to critically examine all of the results in light of the demographic composition of the respondents. Such an examination could provide valuable insight into the response patterns of the survey employers and weigh heavily for any proposed curricular changes.

6. Finally, it is recommended that further research patterned after this investigation be conducted in a modified format on other selected entry-level health occupations. This is especially true for those job titles where training is provided at both the secondary and postsecondary levels.

7. Due to the extremely low return rate in this investigation, additional occupational analysis for health occupations should be limited to individual job titles and in the form of a more concise survey instrument. This measure would insure the likelihood of a higher return rate.

SELECTED BIBLIOGRAPHY

Allied Health Professions Publications. 1979. Task Inventories. Los Angeles: University of California, Los Angeles.

Anderson, Miles H. 1973. Development and Validation of Instructional Programs for the Allied Health Occupations. Los Angeles: University of California, Los Angeles.

Byers, Bruce B. and Frank E. Nowak. 1972. Task Performance for Selected Allied Health Occupations. U.S., Educational Resource Information Center, ERIC Document ED 093890.

Byers, Bruce B., et. al. 1973. Task Analysis: A Review of the State of the Art. U.S., Educational Resource Information Center, ERIC Document ED 093888.

Cave, Julie and E. Joy Hill. 1974. Medical Assisting State-of-the-Art Report. Lexington, Kentucky: University of Kentucky.

Coordinating Board. 1974. Allied Health Project--A Multiple Entry and Exit Curriculum Model in Nursing. Austin, Texas: Coordinating Board, Texas College and University System.

Coordinating Board. 1979. Hospital Personnel Survey-Working Papers. Austin, Texas: Coordinating Board, Texas College and University System.

Gilpatrick, Eleanor. 1977. The Health Services Mobility Study Method of Task Analysis and Curriculum Design. Volume 1. U.S., Educational Resource Information Center, ERIC Document ED 149021.

Gilpatrick, Eleanor. 1977. The Health Serivces Mobility Study Method of Task Analysis and Curriculum Design. Volume 2. U.S., Educational Resource Information Center, ERIC Document ED 149022.

Goldsmith, Katherine, et. al. 1975. A Study of Nursing Occupations. Los Angeles: Allied Health Professions Project, University of California, Los Angeles.

Helmer, Olaf and Normal Dalkey. 1963. "An Experimental Application of the Delphi Method to the Use of Experts." Management Science, 9, 458-467.

Holloway, Lewis D. and Elizabeth E. Kerr. 1969. Review and Synthesis of Research in Health Occupations Education. Columbus, Ohio: Ohio State University.

Junge, Catherine. 1975. Orientation to the Health Care Delivery System--A Multi-Media Instructional Module. Denton, Texas: Institute of Health Sciences, Texas Woman's University.

Kingston, Richard D. and Thomas E. Freeland. 1971. Dental Auxiliary Occupations--Task Analysis Data. Los Angeles: Allied Health Professions Projects, University of California, Los Angeles.

LaRochelle, Diane R. 1979. "The Nursing Profession: New Perspective, New Programs, New Practices." Paper presented at the American Personnel and Guidance Association National Convention, Las Vegas, Nevada, April 5, 1979.

Lavine, Eileen M. and Audrey Moore. 1977. Exploring Ways to Implement the Health Services Mobility Study. U.S., Educational Resource Information Center, ERIC Document ED 149143.

Loe, Hardy Jr. and Peggy J. Rogers. 1974. Allied Health Manpower Education in the Community College. Houston, Texas: Institute for Urban Studies, University of Houston.

McClurg, Ronald B. 1978. Common Intra-Cluster Competencies Needed in Selected Occupational Clusters. U.S., Educational Resource Information Center, ERIC Document ED 163228.

Netrick, Leroy M. 1974. Guidelines for Developing Job Inventory Task Booklets. Atlanta, Georgia: Commission on Occupational Education Institutions, Southern Association of Colleges and Schools.

Texas Health Careers Program. 1979. Health Careers in Texas. Austin, Texas: Texas Hospital Education and Research Foundation.

Texas Hospital Association and Texas Medical Foundation. 1973. Allied Health Manpower in Texas 1973. Austin, Texas: Regional Medical Program of Texas.

Whiteside, Wilfred D. 1977. "Expanded Duties Survey Report," Texas Dental Journal, Vol. 95, No. 3 (March 1977), 14.

Whitman, Karl S., et. al. 1973. Health Occupations Competency Survey: Summary of Final Report. U.S., Educational Resource Information Center, ERIC Document ED 083399.

APPENDIX A

QUARTERLY REPORT
OCTOBER 16, 1979

EAST TEXAS STATE UNIVERSITY

October 16, 1979

Mr. John Hayes
Director, Occupational Curriculum Laboratory
Department of Secondary and Higher Education
East Texas State University
Commerce, Texas 75428

Re: Quarterly Report (July 1979--September 1979) for the Research Project Entitled "Identification and Utilization of Employer Requirements for Entry Level Health Occupation Workers"

Dear Mr. Hayes:

Research project #4902-9708 has progressed during July 1979--September 1979 at a pace that will be sufficient to complete all contract requirements by June 30, 1980, the projected end of the project. Due to the failure to receive Texas Education Agency funding at the proposed beginning date (April 1, 1979), the research effort is slightly behind the schedule, or timeline, identified in the OCL proposal for the project. In addition, the deletion of funds for consultants has required slight modification of the aforementioned OCL proposal. Therefore, you may wish to explore securing written authorization for contract modification.

Phase One of the project has been substantially completed. Preliminary, or background, research, consisting of literature reviews of selected areas, was concluded in August 1979. The areas selected for review included the following: occupational research to identify job descriptions for certain health care workers, training programs that articulate student competency development either at the Secondary or Postsecondary level, studies that have employed the Delphi research technique in assessing compentencies, and research that has centered on employer expections of new employees. A selective bibliography is included in this report as Appendix A. Also, in accordance with Phase One requirements, task (or occupational) analyses were secured from research studies, associations, and consortia. These analyses were used to construct preliminary lists of competency statements in a variety of assistance-level health occupations. The preliminary lists were enlisted in the development of prototype survey instruments, which were subjected to critical review by health professionals--in lieu of the requested consultant committee review, which was not funded. An example of a prototype survey instrument is included in the present report as Appendix B.

OCCUPATIONAL C[illegible] COMMERCE TEXAS 75428

During September 24-26, 1979, meetings with various health professionals were held in Austin, Texas. The prototype survey instruments were reviewed by, or discussed with, Dr. Jim Keeton and Mr. Oscar Millican, both from the Texas Education Agency; Mr. John Haddad, Texas Hospital Association; Dr. Joe Carrington, Texas Dental Association; and Ms. Edith Ayers, Texas League for Nursing. The meetings and discussions significantly contributed to the revision of the survey instruments and to a "sharpening" or delimiting of the project. As a result of the consultation, and with the support of Dr. Jim Keeton, the survey component of the project will focus upon three major employment areas within assistance-level health occupations. Survey instruments are being constructed presently in these areas: Nursing Services, Dental Services, and Clinical Laboratory Services.

Within Nursing Services, employer expectations for entry level nursing assistants, medical (osteopathic) assistants, and licensed vocational nurses will be surveyed. Within Dental Services, expectations for dental assistants, dental laboratory technicians, and dental hygienists will be explored. Finally, within Clinical Laboratory Services, the occupation of medical laboratory assistant and medical laboratory technician will be subjected to occupational analysis.

Thus far, the project has progressed satisfactorily within the second quarter, October 1979--December 1979. Presently, final drafts of the first--round survey instruments--in the aforementioned services--are being prepared for printing. Plans for sample identification and selection are in preparation. Contacts with Mr. Carl Hardin, Texas Board of Dental Examiners, and Mr. Tex Roberts, Texas Osteopathic Medical Associations, have been initiated. Upon completion of the printing of the survey instruments, additional contacts with association staff will be required, in order to finalize survey sampling strategies. A working copy of the format for the final survey instruments is included as Appendix C.

I anticipate no problems with the completion of contract requirements for Research Project #4902-9708. Please advise me if additional details regarding the project are needed.

Sincerely,

Stephen Southern

STEPHEN SOUTHERN, Ed.D.
Researcher

cc: Dr. Jim Zukowski, Curriculum Specialist, Occupational Curriculum Laboratory, East Texas State University

APPENDIX A

SELECTED BIBLIOGRAPHY

American Medical Association. 1978. Allied Health Education Directory, Seventh Edition. Monroe, Wisconsin: American Medical Association.

Bashook, Philip G., et. al. 1978. "Defining a Universe of Expected Competencies: A Methodological Example for Internal Medicine." Microfiche, ERIC, ED 155067.

Bureau of Labor Statistics. 1979. Health Practitioners. Bulletin 1955-27. Washington, DC: Superintendent of Documents, U. S. Government Printing Office.

Byers, Bruce B., et. al. 1973. "Task Analysis: A Review of the State of the Art." Microfiche, ERIC, ED 093888.

Byers, Bruce B., and Frank E. Nowack. 1972. "Task Performance for Selected Allied Health Occupations." Microfiche, ERIC, ED 093890.

Castillo, Max S. 1975. "Study of Competency Behaviors for Elementary Teachers in Bilingual Environments." Unpublished doctoral dissertation, University of Houston.

Cave, Julia, and E. Joy Hill. 1974. Medical Assisting: State of the Art Report. Lexington, Kentucky: University of Kentucky.

Cooley, William W., and Paul R. Lohnes. 1972. Multivariate Data Analysis. New York: John Wiley and Sons.

Department of the Air Force. 1963. The Construction, Review, and Administration of Air Force Job Inventories. Technical Report PRL-TDR-63-21. Washington, DC: U. S. Government Printing Office.

Division of Post-Secondary Programs. 1978. Information Guide and Directory: Occupational-Technical Program in Post-Secondary Institutions in Texas. 1978-1979 Edition. Austin, Texas: Texas Education Agency.

Freeland, Thomas E. 1970. "A Study of the Occupation of Electroencephalographic Technician." Los Angeles: University of California Extension, Allied Health Professions Publications.

Freeland, Thomas E., and Katherine L. Goldsmith. 1977. "Occupational Analysis: Respiratory Care/Inhalation Therapy." Los Angeles: University of California Extension, Allied Health Professions Publications.

Gilpatrick, Eleanor. 1977. "The Health Services Mobility Study Method of Task Analysis and Curriculum Design." Research Report No. 11. Volume 1: "Basic Tools: Concepts, Task Identification, Skill Scales, and Knowledge System." Microfiche, ERIC, ED 149021.

Gilpatrick, Eleanor. 1977. "The Health Services Mobility Study Method of Task Analysis and Curriculum Design." Research Report No. 11. Volume 2: "Writing Task Descriptions and Scaling Tasks for Skills and Knowledge: A Manual." Microfiche, ERIC, ED 149022.

Gussman, Minna L., and G. B. Krishnamurty. 1971. "Occupational Analysis: Hospital Food Service Department." Los Angeles: University of California Extension, Allied Health Professions Publications.

Helfert, Charles J. 1977. "The Identification and Analysis of Theatre Competencies Needed by High School Theatre Teachers in Texas." Unpublished doctoral dissertation, University of Wisconsin, Madison.

Hill, E. Joy, and Julia Cave. 1974. Dental Assisting: State of the Art Report. Lexington, Kentucky: University of Kentucky.

Johnson, Vernelle J. 1976 "An Analysis of Congruence Between Competencies Required for Secondary School Business Education Teachers and Preparation Received in Teacher Education Programs in South Carolina." Unpublished doctoral dissertation, University of South Carolina.

LaRochelle, Diane R. 1979. "The Nursing Profession: New Perspectives, New Programs, New Practices." Paper presented at the American Personnel and Guidance Association National Convention, Las Vegas, Nevada, on April 5, 1979.

Lavine, Eileen M., and Audrey Moore. 1977. "Exploring Ways to Implement the Health Services Mobility Study: A Feasibility Study." Microfiche. ERIC, ED 149143.

Loe, Hardy, and Peggy J. Rogers. 1974. Allied Health Manpower in the Community College: Summary. Houston, Texas: University of Houston, Southwest Center for Urban Research.

Lovelace, Bill E. nd. "A System for Identifying Profession Teaching Competencies of Vocational-Technical Teachers: A Report." Unpublished manuscript.

McClurg, Ronald B. 1978. "Common Intra-Cluster Competencies Needed in Selected Occupational Clusters." Microfiche. ERIC, ED 163228.

McClurg, Ronald B. 1978. "Common Intra-Cluster Competencies Needed in Selected Occupational Clusters." Final Report. Supplemental Volume II: Aide/Orderly. Microfiche. ERIC, ED 163229.

National Health Council. nd. 200 Ways to Put Your Talent to Work in the Health Field. Now York: National Health Council.

Netrick, Leroy M. 1974. Guidelines for Developing Job Inventory Task Booklets. Atlanta, Georgia: Commission on Occupational Education Institutes.

Nie, Normal H., et. al. 1977. Statistical Package for the Social Sciences. Second Edition. New York: McGraw-Hill.

Taub, Howard, Thomas Freeland, and Katherine L. Goldsmith. 1971. "A Study of the Clinical Laboratory Occupations." Los Angeles: University of California Extension, Allied Health Professions Publications.

Texas Hospital Association. 1978. Health Careers in Texas. Austin, Texas: Texas Hospital Education and Research Foundation.

Thompson, Donald L. 1979. "Manpower Trends in the Health Professions." Paper presented at the American Personnel and Guidance Association National Convention, Las Vegas, Nevada, on April 5, 1979.

Vocational-Technical Education Consortium of States (V-TECS). 1974. Emergency Medical Technician: Report of the Domain Study. Atlanta, Georgia: Georgia Department of Education.

Vocational-Technical Education Consortium of States (V-TECS). 1975. Occupational Inventory: Nursing Assistance Occupations. Blacksburg, Virginia: Virginia Polytechnic Institute and State University.

Zukowski, James John. 1979. "The Identification and Analysis of Actual and Desirable Teaching Competencies of Secondary School Instructors of Academic Subjects." Unpublished doctoral dissertation, East Texas State University.

APPENDIX B

OCCUPATIONAL ANALYSIS: Nursing Attendant (Related titles include Nurse Assistant, Aide, and Orderly)

OCCUPATIONAL ANALYSIS SURVEY: BACKGROUND INFORMATION SHEET

Please complete this information sheet before beginning the survey. Respond to each item by checking the most accurate answer or writing the requested information in the blank. Your responses to items on this sheet will be used to compare your competency ratings, which follow in the survey, with employers of entry-level personnel from different regions and professional practice settings across the state.

1. Name____

2. Position Title____________________________________

3. Mailing Address__________________________________

____

4. Length of Time in Present Position____________________

5. Age________ 6. Sex________ 7. Certification, License or Registration______________

8. Nature of Your Training (check one)

_____None

_____On-the-job training: How long? (circle one)

2 wks. 1 mo. 2 mos. 3 mos. longer than 3 mos.

_____Certificate or diploma program: How long: (circle one)

6 mos. 1 yr. 2 yrs. 3 yrs. or more

_____Associate degree

_____Baccalaureate degree

_____Post-baccalaureate degree: Specify____________________

OCCUPATIONAL ANALYSIS: Nursing Attendant

9. Professional Practice Setting (check one)

_____Hospital: Specify number of beds_____________________

Specify area of patient care or hospital service_____________________

_____Private practice: Describe_____________________

_____Nursing home

_____Outpatient clinic (medical)

_____Outpatient clinic (mental health/mental retardation)

_____Health agency

_____Social service agency

_____Research and testing laboratory

_____Pharmacy

_____Medical equipment and supply firm

10. Type of Supervision (offered to individuals in the health occupation that will be analyzed by this survey) (check one)

_____Close supervision; involved in completion of employee's performance report

_____Close supervision; not involved in completion of employee's performance report

_____Occasional supervision; involved in completion of employee's performance report

_____Occasional supervision; not involved in completion of employee's performance report

_____No direct supervision; involved in completion of employee's performance report

_____No direct supervision; not involved in completion of employee's performance report

OCCUPATIONAL ANALYSIS: Nursing Attendant (Related titles include Nurse Assistant, Aide, and Orderly)

INTRODUCTION

By accurately completing this survey, you will provide valuable information regarding the competencies that should be possessed by an entry-level employee in your health services setting. The information gathered by the survey may be used to develop training materials which appropriately prepare an individual for the entry-level health occupation noted above.

INSTRUCTIONS

Complete the following occupational analysis survey in five steps. Please complete each step, in sequence, before beginning the next step. Thank you.

1. As you read each statement in the list, check Y to indicate Yes or N to indicate No in the Performed by Employee section to answer the question, "Would you expect an entry-level Nursing Attendant in your organization to have this competency?"

2. If you checked Y for a competency statement, then check one of the following letters in the Use Frequency section to indicate how often a competency should be used by the Nursing Attendant in your organization.

D means Daily, W means Weekly, M means Monthly, I means Infrequently (less than monthly)

3. After you have completed the above steps, check one of the following numerals--for each competency that should be performed (i.e., the Y was checked)--in the Importance section to indicate the significance or priority of the competency to the overall job of the Nursing Attendant in your organization

1 means No Importance, 2 means Little Importance, 3 means Undecided (cannot estimate importance)

4 means Some Importance, and 5 means Much Importance

4. If other competencies are expected for the entry-level Nursing Assistant in your organization, then write additional competency statements in the Other Competencies section, located at the end of the list of competencies.

5. For every competency statement that you add to the list, complete, in order, steps 1 through 3.

PLEASE TURN TO PAGE 2 AND BEGIN WITH STEP 1

OCCUPATIONAL ANALYSIS: Nursing Attendant

Response Key:
Performed by Employee....Y Yes N No
Use Frequency....D Daily W Weekly M Monthly I Infrequently (less than monthly)
Importance....1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance

Competency Statement	Performed by Employee			Use Frequency					Importance				
	Y	N		D	W	M	I		1	2	3	4	5
1. Seek guidance to improve performance in patient care.													
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).													
3. Orient new personnel to unit facilities, routines, and other personnel.													
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.													
5. Practice established routines and policies of the health care facility.													
6. Supervise subordinates within the health care facility.													
7. Give "on the job" instruction.													
8. Identify operational deficiencies and recommend corrections.													
9. Develop job description.													
10. Maintain standards of employees' personal hygiene as related to job performance.													

APPENDIX C

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OCCUPATIONAL ANALYSIS: Nursing Services

Response
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.																		
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).																		
3. Orient new personnel to unit facilities, routines, and other personnel.																		
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.																		
5. Practice established routines and policies of the health care facility.																		
6. Supervise subordinates within the health care facility.																		
7. Give "on the job" instruction.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
8. Advise staff concerning medical jurisprudence.																		
9. Develop criteria for the selection of records for review and retention.																		
10. Establish work priorities and schedule work assignments.																		
11. Identify operational deficiencies and recommend corrections.																		
12. Evaluate subordinate employee performance.																		
13. Develop job description.																		
14. Consult with health professionals on purchasing, constructing, or using special appliances.																		
15. Interview, evaluate, or hire perspective personnel.																		
16. Maintain standards of employees' personal hygiene as related to job performance.																		
7. Insure that all subordinates are on duty.																		
18. Attend and participate in staff meetings.																		

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APPENDIX B

QUARTERLY REPORT
JANUARY 15, 1980

EAST TEXAS STATE UNIVERSITY

TO: Mr. John Hayes, Director
Occupational Curriculum Laboratory

January 15, 1980

FROM: Dr. James J. Zukowski
Principal Investigator

SUBJ: Quarterly Report (October, 1979-December, 1979) for the research project entitled "Identification and Utilization of Employer Requirements for Entry Level Health Occupations Workers"

Research project #4902-9708 has progressed during the quarter at a pace that will be sufficient to complete all contract requirements by June 30, 1980, the projected end of the project. The following tasks associated with Phase Two of the project have been completed.

Final drafts of the occupational analysis prototypes were printed and disseminated to interested parties. Field review copies of the instruments were supplied to an ad hoc advisory committee whose membership is described in Table 1.

Table 1

Health Research Advisory Committee

Name	Title	Organization
Dr. Joe Carrington	Associate Executive Director	Texas Dental Association
Mr. John Haddad	Director, Health Careers Program	Texas Hospital Association
Dr. Jim Keeton	Director, Health Occupations Education	Texas Education Agency
Mr. Tex Roberts	Executive Director	Texas Osteopathic Medical Association
Mr. C. Lincoln Williston	Executive Director	Texas Medical Association

Several other individuals were provided with copies of the instruments for the purposes of reviewing them for errors, inconsistencies, and duplications. This informal review panel included Ms. Kiar First, Coordinator of Health Occupations, El Centro College; Mr. Carl Hardin, Executive Director, Texas Board of Dental

Examiners; Ms. Pat Lindley, Curriculum Coordinator, Texas Education Agency; Mr. Oscar Millican, Director of Occupational Research, Texas Education Agency; Ms. Barbara Terrell, Health Occupations Education Consultant, Texas Education Agency; and Mr. Mike Young, Director of Department of Medical Service, Texas Medical Association. In order to secure additional information regarding the instruments--especially the instructions--two nursing assistants, one LVN, and one medical laboratory assistant completed the analyses in their respective services.

During the November, 1979, trip to Austin in which prototype instruments were distributed for review, contacts were made with professional associations in order to secure letters of endorsement. Such letters were sought in order to increase the likelihood that a sufficiently large proportion of respondents would complete the first round of the survey. The following associations were contacted for support: Texas Board of Dental Examiners, Texas Dental Association, Texas Education Agency, Texas Hospital Association, Texas Medical Association, and Texas Osteopathic Medical Association. Due to the lengthy review processes which are required by some associations, the project may proceed without all letters in hand. However, support from the major associations in the form of letters in the fronts of the final survey instruments will be secured prior to the first-round mailing which is anticipated in late January or early February, 1980.

Before the first round of surveying can begin, corrections based upon the field review must be incorporated in the occupational analysis forms. The correction process will be facilitated by referral to a competency statement "data bank" which was constructed to control for inconsistent wording and duplication and to promote cross-referencing of items across occupational service areas. Of all competency statements, 109 appeared on two occupational analysis surveys. Generic or core competency statements, those appearing on Dental Services, Medical Laboratory Services, and Nursing Services, totaled 43. Therefore, data secured from the surveys should be helpful in identifying skills required across three major health occupational areas.

During the quarter, plans for sampling were discussed with Mr. Carl Hardin, Texas Board of Dental Examiners, and Mr. Mike Young, Texas Medical Association. They explained the computer search services which can be used to generate efficiently samples of dentists, dental laboratories, and physicians. The services will require additional expenditures that were not identified in the present contract. Therefore, modification of the contract budget may be necessary. Sampling of hospitals will be guided by a directory provided by Mr. John Haddock, Texas Hospital Association. Sampling of osteopathic physicians will be conducted through the use of a comprehensive directory supplied by Mr. Tex Roberts, Texas Osteopathic Medical Association. Procedures for the identification and selection of private medical laboratories located outside of hospitals have not been finalized.

Although the project has progressed well into Phase Two, several tasks must be completed in a timely manner in order for us to remain "on-schedule." The tasks, with ideal completion dates, are included in Table 2, page 3.

Table 2

Tasks Associated with Phase Two

Task	Desired Completion Date
Secure field review corrections	01-21-80
Complete sampling plans	01-21-80
Secure letters of endorsement	01-21-80
Type and print final instruments	01-21--01-25-80
Mail first round surveys	01-28--01-31-80

Obviously, budget changes, mailing list purchases, follow-up phone calls, tickler file construction, and data coding sheets must be completed in order to achieve the desired completion dates.

Rough drafts of chapters 1 and 2 of the final report have been completed. Therefore, I anticipate no problems with the completion of contract requirements for Research Project #4902-9708. Please advise me if additional details regarding the project are needed.

cc: Oscar Milliken, Director of Research
Research Coordinating Unit
Department of Occupational Education & Technology
Texas Education Agency
Austin, TX 78701

APPENDIX C

QUARTERLY REPORT
March 31, 1980

TO: Oscar Milliken, Director
Research Coordinating Unit

FROM: James J. Zukowski, Ed.D.
Principal Investigator

DATE: March 31, 1980

SUBJECT: Quarterly Report, January 1 - March 31, 1980, Contract #00230039, "Identification and Utilization of Employer Requirements for Entry-Level Health Occupations Workers"

During this time period Research Project #00230039 has progressed at a satisfactory pace to complete contract requirements. The following tasks associated with project objectives have been completed:

1. Additional field review copies of the prototype survey instruments were sent out for examination. Comments received from interested parties were considered; and several recommended changes, primarily in the demographic data required, were made.

2. Repeated contacts were made with ad hoc advisory committee members for additional input and to secure letters of acknowledgement/endorsement form the various professional associations. A presentation was made before the Health Careers Committee members of the Texas Medical Association on January 18, 1980, to explain the purpose of the contract and to garner Committee support. By the cutoff date, February 20, 1980, two letters of endorsement were provided, one from the Texas Osteopathic Medical Association and the other from the Texas Medical Association.

3. Names of survey respondents were secured through computer search services provided by the Texas Medical Association and the Texas State Board of Dental Examiners. Directories from the Texas Hospital Association and the Texas Osteopathic Medical Association, as well as a directory of commercial medical laboratories in the state of Texas, were also used. Physicians were stratified by county association membership and then randomly selected, while dentists were systematically selected from the total membership roster based on the type of entry-level personnel employed in their offices. All hospital administrators were targeted, while

only ten percent of osteopaths were recommended for inclusion in the total survey. Fifteen percent of all commercial medical laboratories were systematically pinpointed for the study.

4. All coded survey instruments were mailed by March 12, 1980. A total of 4787 prepaid return postage survey instruments were sent, broken down into the following categories:

	Nursing Services	Dental Services	Medical Laboratory Services
Physicians	1000		
Dentists		1500	
Hospitals	815		562
Osteopaths	100		100
Commercial Labs			750
Total	1915	1500	1372

5. Several meetings with research advisors of the Computer Center, East Texas State University, were held for the purpose of establishing a keypunching format for the survey data. Because of the lengthy nature of each survey instrument and the varied analyses sought, a sophisticated coding system was designed.

6. Mrs. Diane E. Johnson replaced Dr. J. Steven Southern as Researcher for the project on January 15, 1980. Dr. Southern assumed a new position with Odessa College, Odessa, Texas.

7. Preliminary plans were drawn to utilize the results of the survey with guest writers in Health Occupations Education (HOE) who will be employed by the Occupational Curriculum Laboratory, East Texas State University, during June 1980. The coordinated effort will focus on aligning, modifying, and possibly expanding the instructional materials which already have been developed for secondary HOE programs.

Please advise if additional details regarding project activities are needed.

JJZ:dh

cc: John H. Hayes, Project Director
Occupational Curriculum Laboratory

APPENDIX D

DENTAL AUXILIARY SERVICES
SURVEY INSTRUMENT

EAST TEXAS STATE UNIVERSITY

Dear Colleague:

Because you have been identified as a health professional whose expertise will aid us in conducting valid research, we hope that you will take the time to complete the enclosed health occupations survey instrument. This survey is being conducted by the Occupational Curriculum Laboratory, East Texas State University, which has been awarded funds through the Texas Education Agency to conduct research in the Allied Health careers area.

Specifically, our objective is to determine entry-level competencies (skills) for jobs in the areas of Nursing Support Services, Dental Support Services, and Medical Laboratory Services. Additionally, we are seeking information regarding the relative importance of each skill, the frequency with which each skill is performed, and the level at which training for this competency could occur.

We feel that by surveying health professionals who actually employ individuals for these occupations, we can gain extremely accurate information regarding what is actually expected of these workers on the job. In turn, this information will be extremely valuable in providing educators suggested avenues for training workers for these jobs.

Please do not be discouraged by the size of the survey instrument itself. Each statement was drawn from validated studies which specified the tasks that workers in these areas might perform. This does not necessarily mean that you, as a consumer of these people, expect these same skills in your individual setting.

If you feel that someone else within your organization could more appropriately react to the survey, please pass it along to that individual. After the instrument is completed, fold the cover so that the postpaid return address is on the outside flap, staple or tape the cover, and deposit for mailing.

If you wish to receive an abstract of the results of the study once it has been completed, please complete question 13 on the Personal Data section of the survey. Your participation by completing the survey instrument will certainly enhance the validity of our study, and your cooperation will be greatly appreciated.

Sincerely,

James J. Zukowski
James J. Zukowski, Ed.D.
Project Investigator

Diane E. Johnson
Diane E. Johnson
Researcher

PERSONAL DATA SHEET

Please complete this information sheet before beginning the survey. Respond to each item by checking the most accurate answer or writing the requested information in the blank. Your responses to items on this sheet will be used to compare your competency ratings, which follow in this survey, with employers of entry-level personnel from different regions and professional practice settings across the state.

---

1. Name ______________________________ (optional)
2. Position Title ______________________________ (optional)
3. Mailing Address ______________________________ (optional)
   ______________________________ (optional)
4. Length of time in present position ______________
5. Age _____ 6. Sex _____ 7. Certificate, License or Registration
   ____

8. Nature of your training in occupational area analyzed by this survey (check one)

   ____ None
   ____ On-the-job training: How long? (circle one)
   2 wks 1 mo 2 mos 3 mos longer than 3 mos
   ____ Certificate or diploma program: How long?
   6 mos 1 yr 2 yrs 3 yrs or more
   ____ Associate degree
   ____ Baccalaureate degree
   ____ Post-baccalaureate degree: Specify ____________

9. Professional practice setting (check one)

   ____ Hospital:
   Specify number of beds ____________
   Specify area of patient care or hospital service in which you are employed ______________________
   ____ Nursing Home: Specify number of beds ____________
   ____ Private or Commercial Laboratory
   ____ Private Practice: Describe ______________________
   ____

10. Type or supervision (you offer to individuals in the health occupations that will be analyzed by this survey) (check one)

    ____ Close supervision; involved in evaluation of employee's performance
    ____ Close supervision; not involved in evaluation of employee's performance
    ____ Occasional supervision; involved in evaluation of employee's performance
    ____ Occasional supervision; not involved in evaluation of employee's performance
    ____ No direct supervision; involved in evaluation of employee's performance
    ____ No direct supervision; not involved in evaluation of employee's performance

11. Labor market survey: For each of the following occupational titles, indicate (1) the number of individuals currently employed, (2) the number of present vacancies, and (3) the anticipated number of positions, filled or available in the next twelve months.

1	2	3	
_____	_____	_____	Dental Assistant
_____	_____	_____	Dental Laboratory Technician
_____	_____	_____	Dental Hygienist

12. What degree of difficulty do you have in filling the vacancies noted in Item 11?

    little difficulty much difficulty
    1 2 3 4 5

13. Would you like to receive a copy of the results of this survey?
    Yes No

RELATED TITLES

The job titles included in the "Performance" section of the survey are common terms which may or may not be used in your particular health setting. For the purposes of this investigation, we are including the following related titles to clarify the positions that are being examined.

"Performance" Title	Related Titles
DENTAL SERVICES	
Dental Assistant	Dental Office Assistant
Dental Laboratory Technician	Ceramics Technician, Ceramist, Dental Ceramist, Dental Technician, Dental Finisher, Denture Model Maker, Denture Waxer, Orthodontic Technician
Dental Hygienist	Oral Hygienist
MEDICAL LABORATORY SERVICES	
Medical Laboratory Assistant	Laboratory Aide, Laboratory Assistant
Medical Laboratory Technician	Certified Laboratory Assistant, Cytotechnologist, Histologic Technician, Medical Technician
NURSING SERVICES	
Nursing Assistant	Aide, Hospital Attendant, Nurse Aide, Nurse Assistant, Nursing Attendant, Orderly
Medical Assistant	Medical Office Assistant, Osteopathic Medical Assistant
L.V.N.	Licensed Practical Nurse (LPN), Licensed Vocational Nurse (LVN), Vocational Nurse

INTRODUCTION

By accurately completing this survey, you will provide valuable information regarding the competencies that should be possessed by an entry-level employee in your health services setting. The information gathered by the survey may be used to develop training materials which appropriately prepare an individual for the entry-level health occupation noted above.

INSTRUCTIONS

1. As you read each statement in the list, check one of the following numerals in the Performance section to answer the question: "Who actually performs this competency, on more than 50 percent of the occasions, in your health field setting?"

   1 means No One (competency statement does not apply), 2 means Other Employee (than those listed), 3 means Dental Assistant, 4 means Dental Laboratory Technician, and 5 means Dental Hygienist

2. If you did not check "1" in Step 1, then check one of the following letters in the Use Frequency section to indicate how often the individual (or individuals) in the occupation performs the competency in your health setting.

   I mean Infrequently (less often than monthly), M means Monthly, W means Weekly, D means Daily

3. After you have completed the above steps (i.e., you did not check "1" in Step 1), check one of the following numerals in the Importance section to indicate the significance or priority of the competency to the overall job of the individual in the occupation selected in Step 1.

   1 means No Importance, 2 means Little Importance, 3 means Undecided (cannot estimate importance), 4 means Some Importance, 5 means Much Importance

4. After you have completed the above steps (i.e., you did not check "1" in Step 1), check one of the following letters to answer the question: "What is the appropriate level of training needed by an individual, in the occupation selected in Step 1, in order to sufficiently prepare the person to perform the competency in your health setting?"

   a means On-the-Job, b means Secondary (Health Occupations Education or VOE), c means Postsecondary including certificate programs), d means Postsecondary (including degree programs)

5. If other competencies are expected in your organization for an entry-level employee in the occupation, identified in Step 1, then write the additional competency statements in the Other Competencies section, located at the end of the list of competencies, and complete Steps 1-4 for each statement.

PLEASE TURN TO NEXT PAGE AND BEGIN WITH STEP 1

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.																		
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).																		
3. Orient new personnel to unit facilities, routines, and other personnel.																		
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.																		
5. Practice established routines and policies of the health care facility.																		
6. Supervise subordinates within the health care facility.																		
7. Give "on-the-job" instruction.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
8. Establish work priorities and schedule work assignments.																					
9. Identify operational deficiencies and recommend corrections.																					
10. Evaluate subordinate employee performance.																					
11. Consult with health professionals on purchasing, constructing, or using special appliances.																					
12. Maintain standards of employees' personal hygiene as related to job performance.																					
13. Interview, evaluate, or hire prospective personnel.																					
14. Insure that all subordinates are on duty.																					
15. Attend and participate in staff meetings.																					
16. Develop policies and establish departmental procedures.																					
17. Inform personnel of new or changed policies and procedures.																					
18. Provide liaison between doctor and other professioanl associates.																					

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
19. Review and approve employee's payroll time and salary.																		
20. Coordinate work schedules with other departments.																		
21. Teach special procedures to department members, students, and health care professionals.																		
22. Teach safety techniques as needed.																		
23. Inform personnel of potential hazards in their working areas.																		
24. Demonstrate tact in giving and withholding information concerning patient care or operations of the health care facility.																		
25. Attend meetings and participate in community activities related to doctor's practice.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
26. Assist in the orientation of volunteers, students and new staff.																					
27. Conduct tours of facilities.																					
28. Obtain and deliver supplies for patiant's entertainment or recreation.																					
29. Inventory, sign for, and place patient's personal possessions in safe place.																					
30. Assist patient with personal hygiene and grooming.																					
31. Assist in resolving patient complaints.																					
32. Teach patient or family preventative general health care.																					
33. Obtain information from patient or family.																					
34. Receive patients, explain tests and procedures to them, and allay their fears.																					
35. Attend to patient's comfort before, during, and after examination, tests, or treatment.																					
36. Aid patient in completing insurance forms.																					

OCCUPATIONAL ANALYSIS: Dental Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
37. Explain postoperative instructions to patient.																		
38. Explain fees to patient.																		
39. Assist patient in planning for health care facility.																		
40. Explain therapy procedures in lay terms.																		
41. Explain follow-up services to patient.																		
42. Assist in establishing a comfortable relationship between the patient and the health care professional.																		
43. Observe negative or positive physical and emotional responses to treatments.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
44. Interpret patient's signs, symptoms, and behaviors.																					
45. Observe patient's general physical condition, appearance, and behavior.																					
46. Record and chart vital signs, and/or other conditions as directed by health care professional.																					
47. Conduct routine financial matters of employer, including collecting fees, making deposits, and sending statements.																					
48. Maintain petty cash accounts.																					
49. Maintain appointment control.																					
50. Complete insurance forms.																					
51. Maintain state and federal tax information and prepare tax forms.																					
52. Schedule patient treatment sessions.																					
53. Maintain record of all requests for patient information																					
54. Obtain charts of patients for whom information is requested.																					

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
55. Prepare patient record folder or chart.																		
56. Sort, file, and organize documents, certificates, and patient records.																		
57. Care for preliminary or final dental impressions.																		
58. Process mail and correspondence (both incoming and outgoing).																		
59. Prepare requests for vacation or sick leave.																		
60. Handle telephone calls.																		
61. Prepare correspondence, reports, or summaries, but not forms.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
62. File dental radiographs.																		
63. Maintain a patient recall system.																		
64. Record patient's medical or dental history.																		
65. Check and maintain charting of treatments, medications, procedures, orders, and observations.																		
66. Operate office business machines.																		
67. Initiate and maintain a medical record file for patients.																		
68. Establish and maintain a control system for location of medical record folders.																		
69. Maintain catalogs of supplies and equipment																		
70. Maintain a fee schedule for services.																		
71. Prepare statistical reports.																		
72. Follow established procedure in filing incident reports.																		

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance						Use Frequency					Importance						Training			
	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
73. Process loans of X-ray films.																					
74. Open sterile packages and packs.																					
75. Prepare injections, using measured or sterilized dose.																					
76. Accumulate and process data for doctor's interpretation.																					
77. Apply air to keep cavity preparation dry.																					
78. Evaluate adequacy of work space.																					
79. Select proper accessories for radiographic techniques.																					

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
80. Know and apply basic first aid techniques, including cardiac resuscitation.																		
81. Set up and assist with surgical procedures.																		
82. Take and process X-rays.																		
83. Practice patient and operator safety measures and radiation.																		
84. Deliver and receive instruments at chairside.																		
85. Adjust voltage, amperage, and timer of X-ray machine.																		
86. Assist with amalgam restoration.																		
87. Prepare dental materials for placement.																		
88. Prepare setup for prophylaxis (cleaning).																		
89. Triturate amalgam-alloy.																		
90. Prepare silicate for restoration.																		

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
91. Prepare zinc phosphate cement for protective base.																		
92. Prepare setup for fluoride treatment.																		
93. Prepare alginate for impression by dentist.																		
94. Fill alginate tray.																		
95. Prepare setup for endontics (root canal therapy).																		
96. Prepare setup for prosthetics.																		
97. Load carrier and place amalgam in cavity preparation.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
98. Prepare compound for impression by dentist.																		
99. Prepare setup for peridontal treatments.																		
100. Prepare tray setup for orthodontic treatments.																		
101. Prepare non-carpule hypodermic syringe for injection of medications.																		
102. Place matrix for amalgam restoration.																		
103. Heat or prepare gutta percha for temporary stopping.																		
104. Condense amalgam restorations.																		
105. Receive and preserve biopsy specimens.																		
106. Pour final impressions to produce master cast.																		
107. Pour, trim, and articulate cast.																		
108. Fabricate impression trays from preliminary impressions.																		

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
109. Pour casts of orthodontic deformities.																		
110. Fabricate trial baseplates and occlusal rims for complete dentures.																		
111. Make removable partial denture prosthesis for occlusal adjustments.																		
112. Fabricate individual surgical trays for immediate dentures.																		
113. Complete simple denture repairs.																		
114. Fabricate temporary, removable bite raisers.																		
115. Solder component parts of removable partial denture.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
116. Replace tube teeth or facings.																		
117. Ditch the die.																		
118. Recognize and identify various types of dental instruments and equipment.																		
119. Evaluate dental radiographs for diagnostic quality.																		
120. Interpret the dental prescription.																		
121. Check records (charts) for deficiencies.																		
122. Type information onto various forms.																		
123. Maintain daily production record.																		
124. Construct palatal relief.																		
125. Solder contact on crown.																		
126. Solder bridge.																		

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
127. Pickle casting.																		
128. Grind and polish crown.																		
129. Wax-up and flask process acrylic facing, crown, or bridge.																		
130. Reduce sharp edges of fractured tooth.																		
131. Repair complete or partial denture, e.g., replace one or more teeth.																		
132. Bend wire for clasp.																		
133. Examine brushing effectiveness; indicate deficient areas to patient.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
134. Construct broken stress/precision attachment bridge.																		
135. Construct cleft palate splint or removable expansion appliance.																		
136. Tripod or mark master cast.																		
137. Exchange diamond (bur, mandrel, mounted, or stone) in dental handpiece.																		
138. Add teeth to complete or partial denture.																		
139. Fabricate artificial teeth for characterized denture.																		
140. Flask, pack, cure, and deflask partial or complete denture.																		
141. Perform emergency orthodontic repair.																		
142. Make temporary acrylic resin jacket crown.																		
143. Dehydrate refractory cast.																		
144. Select shade and mold for crown/bridge.																		

OCCUPATIONAL ANALYSIS: Dental Services

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	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
145. Prepare cast for altered cast impression.																					
146. Design removable partial denture.																					
147. Clean or polish removable appliance.																					
148. Border mold, muscle trim custom tray.																					
149. Make individual surgical tray for immediate denture.																					
150. Prepare or apply characterized porcelain restoration.																					
151. Construct plastic dental splint.																					

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
152. Prepare die from cast.																					
153. Make habit control device.																					
154. Fabricate surgical template.																					
155. Polish and finish partial denture framework.																					
156. Bake and finish porcelain restoration.																					
157. Repair complete or partial denture (no teeth damage).																					
158. Pour refractory cast.																					
159. Operate audiovisual equipment, e.g., projector, recorder, etc.																					
160. Mount final cast to adjustable articulator.																					
161. Cast crown, bridge, or inlay in gold.																					
162. Make orthodontic space maintainer or retainer.																					

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
163. Wax-up, shape, and contour removable appliance for try-in or final processing.																		
164. Remove plaster or stone cast from impression after setting.																		
165. Perform selective grinding of denture.																		
166. Process acrylic facing on bridge.																		
167. Remove teeth from metal framework.																		
168. Sandblast partial denture framework or chrome castings.																		
169. Transfer design from master cast to refractory cast.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
170. Disassemble bridge.																					
171. Reset teeth for complete or partial denture.																					
172. Sandblast gold appliance.																					
173. Make soldering index.																					
174. Design and form post dam.																					
175. Set up artificial teeth on removable partial denture framework.																					
176. Inspect dental case or model for acceptance.																					
177. Perform soft tissue curettage.																					
178. Adjust partial framework.																					
179. Prepare necessary ingredients for dental casting.																					
180. Duplicate master cast.																					

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
181. Survey cast for partial denture design.																		
182. Adjust fixed bridge or splint.																		
183. Make or transfer coping.																		
184. Carve and restore anatomical landmarks on dental restoration.																		
185. Weld or solder orthodontic band.																		
186. Adjust wrought gold clasp and bar.																		
187. Fabricate orthodontic appliance e.g., Hawley.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
188. Finish and polish metallic framework.																					
189. Solder chrome cobalt casting.																					
190. Arrange artificial teeth in balanced occlusion for complete denture.																					
191. Put post dam on master cast.																					
192. Remount complete denture for occlusal adjustment.																					
193. Bead and box final impression.																					
194. Select teeth for removable prosthetic appliance.																					
195. Finish and polish gold alloy inlays, crowns, or fixed partial dentures.																					
196. Design and position palatal reliefs.																					
197. Cast gold crown, inlay, or pontic backing.																					
198. Perform root planning procedures.																					

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
199. Pickle and heat-treat gold inlays, crowns, or pontics.																		
200. Fabricate immediate complete or removable partial dentures.																		
201. Wax-up and carve inlays, crowns, or pontics for fixed partial bridges.																		
202. Apply foil or tinfoil substitute to complete/partial denture.																		
203. Complete complex denture repairs.																		
204. Bead and box complete or partial denture impressions.																		
205. Reline dentures by flask method.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
206. Stabilize baseplates.																		
207. Solder units of fixed partial dentures.																		
208. Polish or glaze porcelain facing, teeth, or pontics.																		
209. Survey and design removable partial dentures.																		
210. Block out and relieve master casts.																		
211. Fabricate broken stress or precision attachment bridges.																		
212. Fabricate baked porcelain-to-gold restorations.																		
213. Fabricate orthodontic space maintainers or retainers.																		
214. Characterize and apply stains to porcelain facings, crowns, and pontics.																		
215. Fabricate ceramic porcelain jackets.																		
216. Fabricate mouth guards.																		

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
217. Fabricate electroformed dies.																		
218. Pour orthodontic casts.																		
219. Fabricate splints for immobilization of fractures of maxilla and mandible.																		
220. Fabricate amalgam dies.																		
221. Fabricate cast metal bases for complete dentures.																		
222. Estimate amounts of precious metals or chrome-cobalt alloys required for casting.																		
223. Survey and design study casts.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
224. Characterize denture base materials.																					
225. Give physiotherapy instruction for temporomandibular joint difficulty.																					
226. Perform bedside oral prophylaxis.																					
227. Take and prepare oral cytologic smears.																					
228. Remove plaque and stain, and polish teeth.																					
229. Clean interproximal surfaces of teeth with dental floss or tape.																					
230. Use ultrasonic devices to remove calculus.																					
231. Apply disclosing solutions to the teeth to identify bacterial plaque.																					
232. Polish finished restorations.																					
233. Apply fluoride to teeth.																					
234. Perform peridontal charting.																					

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
235. Desensitize hypersensitive teeth.																		
236. Apply topical medications.																		
237. Remove and insert temporary fillings.																		
238. Remove or prepare surgical peridontal packs.																		
239. Locate and assess the amount of stains and deposits.																		
240. Recognize conditions indicated in history that require alteration procedure.																		
241. Identify abnormalities in soft tissues of the mouth.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
242. Identify extra-oral habits affecting occlusion.																					
243. Identify deviate swallowing patterns.																					
244. Handle and store sterilized material to prevent contamination.																					
245. Load and unload film units.																					
246. Take X-rays (dental, abdominal, spinal, chest, etc.)																					
247. Recognize expected reactions to treatment.																					
248. Minimize hazards throughout the health care facility.																					
249. Have an understanding of fire prevention and control.																					
250. Give instructions to patient regarding medication.																					
251. Direct patient to project completion by praise and encouragement.																					
252. Teach patient to perform activity by instructing and demonstrating.																					

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
253. Remove impressions from patient's mouth.																		
254. Take impressions for study models.																		
255. Place, cut, or remove sutures postoperatively.																		
256. Place or remove temporary cement.																		
257. Place or remove peridontal surgical pack.																		
258. Remove medication (dry socket).																		
259. Select appropriate home care technique for each patient.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
260. Evaluate dietary habits and instruct patient on proper nutrition.																		
261. Abstract simple data from patient's chart.																		
262. Assist with oral surgery procedures.																		
263. Aspirate during oral surgery.																		
264. Assist with the administration of local anesthetics.																		
265. Evacuate oral cavity during restorative procedure.																		
266. Apply water to tooth during cavity preparation.																		
267. Insert or remove cotton rolls.																		
268. Assist with rubber dam application and removal.																		
269. Stabilize patient's mandible during operations.																		
270. Dispense medications when ordered by health professional.																		

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
271. Hold impression in mouth after dentist places impression tray.																		
272. Deliver or remove equipment and supplies from contaminated room.																		
273. Dispose of contaminated materials and equipment.																		
274. Clean patient unit furniture.																		
275. Polish removable partial denture base.																		
276. Clean and maintain service area and equipment, within area of responsibility.																		
277. Order or inventory and store equipment and supplies.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
278. Determine if equipment needs repair.																		
279. Schedule or perform maintenance on equipment.																		
280. Clean, sharpen, and maintain instruments or equipment as required.																		
281. Reline dentures by articulator method.																		
282. Fit indirect orthodontic band.																		
283. Duplicate complete denture.																		
284. Make temporary bridge or splint.																		
285. Store and inventory precious metals.																		
286. Clean and maintain laboratory instruments.																		
287. Maintain dental laboratory equipment.																		
288. Fabricate face masks for before-and-after presentations of special cases.																		

OCCUPATIONAL ANALYSIS: Dental Services

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	Training........	a On-the-Job b Secondary (HJF) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
289. Fabricate acrylic resin jacket crowns and pontics.																		
290. Fabricate stone dies.																		
291. Grind in porcelain or acrylic facings and pontics.																		
292. Sprue, invest, and burn out gold alloy inlays, crowns, or pontics.																		
293. Test occlusion and fit of inlays, crowns, or fixed partial dentures.																		
294. Sprue and invest wax-up for casting removable partial dentures.																		
295. Trim and wax-dip refractory casts of removable partial dentures.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
296. Burn out wax prior to casting.																		
297. Cast metal framework for removable partial dentures.																		
298. Grind in tube teeth or facings.																		
299. Make trial baseplates and occlusal rims for removable partial dentures.																		
300. Assemble and repair complete dentures.																		
301. Repair metal parts of removable partial dentures.																		
302. Give oral habit therapy.																		
303. Eliminate wax from denture molds.																		
304. Critically evaluate processing errors.																		
305. Critically evaluate completed case.																		
306. Wax-up and contour complete denture base for try-in or final processing.																		

OCCUPATIONAL ANALYSIS: Dental Services

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	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
307. Critically evaluate impressions and casts prior to fabrication of cast.																		
308. Arrange artificial teeth in centric relation to complete dentures.																		
309. Maintain unexposed radiographic film storage.																		
310. Establish and maintain chain of anticepsis.																		
311. Prepare instruments for sterilization (chemical, autoclaving, dry heat).																		
312. Sterilize instruments by chemical, autoclaving, or dry heat procedures.																		
313. Inspect all areas and rooms for proper housekeeping, temperature, and adequate supplies.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
314. Check invoices against purchase orders.																					
315. Organize storage areas for equipment, supplies, drugs.																					
316. Schedule regular checks for radiation leakage.																					
317. Check radiation monitoring badges.																					
318. Apply paralleling (long cone) procedures for peri-apical radiographic survey.																					
319. Apply bisecting angle (short cone) procedures for peri-apical radiographic survey.																					
320. Develop and fix exposed radiographic film.																					
321. Mix solutions for developing and fixing radiographic film.																					
322. Apply extraoral radiographic procedures.																					
323. Apply bite-wing radiographic procedures.																					
324. Apply occlusal radiographic procedures.																					

OCCUPATIONAL ANALYSIS: Dental Services

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	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
325. Apply panoramic radiographic procedures.																		
326. Mount dental radiographs.																		
327. Label dental radiographs.																		
328. Clean X-ray processing equipment.																		
329. Position patient for radiographic examination.																		
330. Select film size appropriate for patient's mouth and indicated techniques.																		
331. Plan sequence of procedures for appointment or series of appointments.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
332. Operate automatic processing equipment.																		
333. Seat and dismiss patient from chair.																		
334. Apply coagulants or administer hemostatics.																		
335. Cut suture material after tying by dentist.																		
336. Irrigate oral cavity for rinsing.																		
337. Make proper disposition and distribution of medical or dental records.																		
338. Apply topical anesthetics.																		
339. Care for various pieces of dental equipment.																		
340. Retract oral tissues in surgical procedures.																		
341. Retract patient's cheek, lips, and tongue.																		
342. Prepare setup for local anesthetic injection.																		

OCCUPATIONAL ANALYSIS: Dental Services

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	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
343. Place or remove rubber dam.																		
344. Prepare setup for gold foil restoration.																		
345. Anneal gold foil.																		
346. Place gold foil as directed by operator.																		
347. Apply hand mallet in surgical procedures.																		
348. Hand dentist triturate amalgam.																		
349. Change engine belt on low-speed engine.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
350. Preserve and incubate bacterial cultures.																		
351. Prepare hydrocolloid for impression.																		
352. Prepare rubber base material for impression.																		
353. Prepare acrylic for restoration.																		
354. Carve amalgam restorations.																		
355. Remove excess cement from crowns of the teeth.																		
356. Remove temporary cement.																		
357. Record oral conditions as directed by dentist.																		
358. Instruct patient in oral hygiene.																		
359. Hand dentist mallet gold foil.																		
360. Assist dentist in hospital operative procedures.																		

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
361. Assist with gold foil restoration.																		
362. Greet patient and escort to dental hygiene operatory.																		
363. Position patient and operator.																		
364. Perform dental charting.																		
365. Give home care instruction.																		
366. Remove subgingival calculus.																		
367. Remove supragingival calculus.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
368. Polish finished restorations.																		
369. Take and record patient's medical and dental history.																		
370. Administer anesthetics (local injection).																		
371. Remove overhanging margins of fillings.																		
372. Smooth enamel fractures.																		
373. Supervise other dental auxiliaries in routine dental tasks.																		
374. Other Competencies (List Below)																		

APPENDIX E

NURSING SERVICES
SURVEY INSTRUMENT

EAST TEXAS STATE UNIVERSITY

Dear Colleague:

Because you have been identified as a health professional whose expertise will aid us in conducting valid research, we hope that you will take the time to complete the enclosed health occupations survey instrument. This survey is being conducted by the Occupational Curriculum Laboratory, East Texas State University, which has been awarded funds through the Texas Education Agency to conduct research in the Allied Health careers area.

Specifically, our objective is to determine entry-level competencies (skills) for jobs in the areas of Nursing Support Services, Dental Support Services, and Medical Laboratory Services. Additionally, we are seeking information regarding the relative importance of each skill, the frequency with which each skill is performed, and the level at which training for this competency could occur.

We feel that by surveying health professionals who actually employ individuals for these occupations, we can gain extremely accurate information regarding what is actually expected of these workers on the job. In turn, this information will be extremely valuable in providing educators suggested avenues for training workers for these jobs.

Please do not be discouraged by the size of the survey instrument itself. Each statement was drawn from validated studies which specified the tasks that workers in these areas might perform. This does not necessarily mean that you, as a consumer of these people, expect these same skills in your individual setting.

If you feel that someone else within your organization could more appropriately react to the survey, please pass it along to that individual. After the instrument is completed, fold the cover so that the postpaid return address is on the outside flap, staple or tape the cover, and deposit for mailing.

If you wish to receive an abstract of the results of the study once it has been completed, please complete question 13 on the Personal Data section of the survey. Your participation by completing the survey instrument will certainly enhance the validity of our study, and your cooperation will be greatly appreciated.

Sincerely,

James J. Zukowski

James J. Zukowski, Ed.D.
Project Investigator

Diane E. Johnson

Diane E. Johnson
Researcher

TEXAS MEDICAL ASSOCIATION
1801 NORTH LAMAR BLVD • AUSTIN TEXAS [illegible] • AC 512 477-6704

February 5, 1980

James J. Zukowski, EdD
Principal Investigator
Occupational Curriculum Laboratory
East Texas State University
Commerce, Texas 75428

Dear Dr. Zukowski:

I am pleased to report that the Texas Medical Association's Executive Board has had the opportunity to consider your plans to conduct a study to identify competencies required of health occupations workers by professional employers in a variety of practice settings.

The Executive Board agrees with the recommendation of its Committee on Health Careers and Council on Medical Education that the information sought in your research project has the potential to offer an important and pertinent understanding of the requirements for education and employability of health occupation workers.

May we offer our encouragement for you to proceed with the study. We also look forward to receiving a summary of the results of the study.

Best wishes.

Sincerely,

A Hendler

Albert F. Hendler, MD, Chairman
Committee on Health Careers

AFH:MB:pi

cc: William F. Ross, MD
C. Lincoln Williston

PERSONAL DATA SHEET

Please complete this information sheet before beginning the survey. Respond to each item by checking the most accurate answer or writing the requested information in the blank. Your responses to items on this sheet will be used to compare your competency ratings, which follow in this survey, with employers of entry-level personnel from different regions and professional practice settings across the state.

---

1. Name ______________________ (optional)
2. Position Title ______________________ (optional)
3. Mailing Address ______________________ (optional)
______________________ (optional)
4. Length of time in present position ____________
5. Age ____ 6. Sex ____ 7. Certificate, License or Registration ____________
8. Nature of your training in occupational area analyzed by this survey (check one)

____ None

____ On-the-job training: How long? (circle one)

2 wks 1 mo 2 mos 3 mos longer than 3 mos

____ Certificate or diploma program: How long?

6 mos 1 yr 2 yrs 3 yrs or more

____ Associate degree

____ Baccalaureate degree

____ Post-baccalaureate degree: Specify ____________

9. Professional practice setting (check one)

____ Hospital:

Specify number of beds ________

Specify area of patient care or hospital service in which you are employed ____________

____ Nursing Home: Specify number of beds ________

____ Private or Commercial Laboratory

____ Private Practice: Describe ____________

____

10. Type or supervision (you offer to individuals in the health occupations that will be analyzed by this survey) (check one)

____ Close supervision; involved in evaluation of employee's performance

____ Close supervision, not involved in evaluation of employee's performance

____ Occasional supervision; involved in evaluation of employee's performance

____ Occasional supervision; not involved in evaluation of employee's performance

____ No direct supervision; involved in evaluation of employee's performance

____ No direct supervision; not involved in evaluation of employee's performance

11. Labor market survey: For each of the following occupational titles, indicate (1) the number of individuals currently employed, (2) the number of present vacancies, and (3) the additional number of positions, available in the next twelve months.

1 2 3

____ ____ ____ Nursing Assistant

____ ____ ____ Medical Assistant

____ ____ ____ Licensed Vocational Nurse (L.V.N.)

12. What degree of difficulty do you have in filling the vacancies noted in Item 11?

little difficulty much difficulty

1 2 3 4 5

13. Would you like to receive a copy of the results of this survey?

Yes No

RELATED TITLES

The job titles included in the "Performance" section of the survey are common terms which may or may not be used in your particular health setting. For the purposes of this investigation, we are including the following related titles to clarify the positions that are being examined.

"Performance" Title	Related Titles
DENTAL SERVICES	
Dental Assistant	Dental Office Assistant
Dental Laboratory Technician	Ceramics Technician, Ceramist, Dental Ceramist, Dental Technician, Dental Finisher, Denture Model Maker, Denture Waxer, Orthodontic Technician
Dental Hygienist	Oral Hygienist
MEDICAL LABORATORY SERVICES	
Medical Laboratory Assistant	Laboratory Aide, Laboratory Assistant
Medical Laboratory Technician	Certified Laboratory Assistant, Cytotechnologist, Histologic Technician, Medical Technician
NURSING SERVICES	
Nursing Assistant	Aide, Hospital Attendant, Nurse Aide, Nurse Assistant, Nursing Attendant, Orderly
Medical Assistant	Medical Office Assistant, Osteopathic Medical Assistant
L.V.N.	Licensed Practical Nurse (LPN), Licensed Vocational Nurse (LVN), Vocational Nurse

INTRODUCTION

By accurately completing this survey, you will provide valuable information regarding the competencies that should be possessed by an entry-level employee in your health services setting. The information gathered by the survey may be used to develop training materials which appropriately prepare an individual for the entry-level health occupation noted above.

INSTRUCTIONS

1. As you read each statement in the list, check one of the following numerals in the Performance section to answer the question: "Who actually performs this competency, on more than 50 percent of the occasions, in your health field setting?"

   1 means No One (competency statement does not apply), 2 means Other Employee (than those listed) 3 means Nursing Assistant, 4 means Medical Assistant, and 5 means Licensed Vocational Nurse (L.V.N.)

2. If you did not check "1" in Step 1, then check one of the following letters in the Use Frequency section to indicate how often the individual (or individuals) in the occupation performs the competency in your health setting.

   I means Infrequently (less often than monthly), M means Monthly, W means Weekly, and D means Daily

3. After you have completed the above steps (i.e., you did not check "1" in Step 1), check one of the following numerals in the Importance section to indicate the significance or priority of the competency to the overall job of the individual in the occupation selected in Step 1.

   1 means No Importance, 2 means Little Importance, 3 means Undecided (cannot estimate importance), 4 means Some Importance, and 5 means Much Importance

4. After you have completed the above steps (i.e., you did not check "1" in Step 1), check one of the following letters to answer the question: "What is the appropriate level of training needed by an individual, in the occupation selected in Step 1, in order to sufficiently prepare the person to perform the competency in your health setting?"

   a means On-the-Job, b means Secondary (Health Occupations Education or HOE), c means Postsecondary including certificate programs), and d means Postsecondary (including degree programs)

5. If other competencies are expected in your organization for an entry-level employee in the occupation, identified in Step 1, then write the additional competency statements in the Other Competencies section, located at the end of the list of competencies, and complete Steps 1-4 for each statement.

PLEASE TURN TO NEXT PAGE AND BEGIN WITH STEP 1

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.																		
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).																		
3. Orient new personnel to unit facilities, routines, and other personnel.																		
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.																		
5. Practice established routines and policies of the health care facility.																		
6. Supervise subordinates within the health care facility.																		
7. Give "on the job" instruction.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
8. Advise staff concerning medical jurisprudence.																					
9. Develop criteria for the selection of records for review and retention.																					
10. Establish work priorities and schedule work assignments.																					
11. Identify operational deficiencies and recommend corrections.																					
12. Evaluate subordinate employee performance.																					
13. Develop job description.																					
14. Consult with health professionals on purchasing, constructing, or using special appliances.																					
15. Interview evaluate, or hire prospective personnel.																					
16. Maintain standards of employees' personal hygiene as related to job performance.																					
17. Insure that all subordinates are on duty.																					
18. Attend and participate in staff meetings.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
19. Develop policies and establish departmental procedures.																		
20. Inform personnel of new or changed policies and procedures.																		
21. Provide liaison between doctor and other professional associates.																		
22. Coordinate work schedules with other departments.																		
23. Teach special procedures to department members, students, or health care professionals.																		
24. Teach safety techniques as needed.																		
25. Inform personnel of potential hazards in their working area.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
26. Demonstrate tact in giving and withholding information concerning patient care or operations of the health care facility.																					
27. Represent the department and facility at community meetings.																					
28. Attend meetings and participate in community activities related to doctor's practice.																					
29. Arrange meetings, conferences, or travel accommodations.																					
30. Assist in the orientation of volunteers, students, and new staff.																					
31. Recommend materials to be used in training volunteers.																					
32. Train volunteers in specific techniques.																					
33. Participate in public relations activities as directed.																					
34. Obtain and deliver supplies for patient's entertainment or recreation.																					
35. Inventory, sign for, and place patient's personal possessions in safe place.																					
36. Assist patient in dressing and undressing.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
37. Assist patient with personal hygiene and grooming.																		
38. Assist patient in walking																		
39. Assist patient into and out of bed.																		
40. Transport patient on stretcher or wheelchair.																		
41. Prepare food so patient may feed self.																		
42. Assist patient in use of commode, urinal, or bedpan.																		
43. Assist with or remove fecal impaction.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
44. Report violations of regulations.																		
45. Assist in resolving patient complaints.																		
46. Obtain signature on various patient or family consent forms.																		
47. Teach patient or family preventative general health care.																		
48. Prepare patient to see clergy or receive sacraments.																		
49. Assist patient in active or passive exercise.																		
50. Obtain information from patient or family.																		
51. Orient patient or family to health care facility.																		
52. Receive patients, explain tests and procedures to them, and allay their fears.																		
53. Attend to patient's comfort before, during, and after examination, tests, or treatment.																		
54. Aid patient in completing insurance forms.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
55. Explain postoperative instructions to patient.																		
56. Explain fees to patient.																		
57. Assist patient in planning for health care facility.																		
58. Administer manual massage.																		
59. Explain therapy procedures in lay terms.																		
60. Explain follow-up services to patient.																		
61. Help patients develop positive attitudes toward their illness or confinement.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
62. Straighten patient's room.																		
63. Assist in establishing a comfortable relationship between the patient and the health care professional.																		
64. Observe negative or positive physical and emotional responses to treatments.																		
65. Interpret patient's signs, symptoms, and behaviors.																		
66. Identify strengths and weaknesses of care plan.																		
67. Observe patient's general physical condition, appearance, and behavior.																		
68. Observe, measure, and record patient fluid intake and output.																		
69. Record and chart vital signs and/or other conditions as directed by health care professional.																		
70. Use the intercom.																		
71. Follow established admitting procedures.																		
72. Maintain a use record on special equipment.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
73. Conduct routine financial matters of employer, including collecting fees, making deposits, and sending statements.																		
74. Complete insurance forms.																		
75. Schedule patient treatment sessions.																		
76. Obtain charts of patients for whom information is requested.																		
77. Prepare patient record folder or chart.																		
78. Transfer patient food order to patient records.																		
79. Sort, file, or organize documents, certificates, and patient records.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
80. Prepare daily census.																		
81. Prepare requisitions.																		
82. Maintain appointment control.																		
83. Maintain state and federal tax information and prepare tax forms.																		
84. Maintain record of all requests for patient information.																		
85. Process mail and correspondence (both incoming and outgoing).																		
86. Process payroll time cards.																		
87. Assist patient in placing telephone calls.																		
88. Handle telephone calls.																		
89. Prepare correspondence, reports, or summaries, but not forms.																		
90. Mount, label, and file radiographs.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
91. Maintain a patient recall system.																		
92. Assist patient in writing letters and messages.																		
93. Record patient's medical or dental history.																		
94. Communicate menu changes.																		
95. Distribute drinking water.																		
96. Record nursing care.																		
97. Check and maintain charting of treatments, medications, procedures, orders, and observations.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
98. Receive and organize handling of medication samples.																					
99. Operate office business machines.																					
100. Initiate and maintain a medical record file for patients.																					
101. Follow up on house calls and hospital visits for information needed for office medical record folders.																					
102. Establish and maintain a control system for location of medical record folders.																					
103. Maintain catalogs of supplies and equipment.																					
104. Maintain a fee schedule for services.																					
105. Record information on blood record card.																					
106. Follow established procedures in filing incident reports.																					
107. Receive and record physician's verbal orders.																					
108. Follow established procedures for processing authorization forms including autopsy, surgery, diagnostic tests, and discharge forms.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
109. Transcribe physician's orders.																		
110. Apply restraints.																		
111. Adjust side rails and height of bed.																		
112. Open sterile packages and packs.																		
113. Make patient's bed, occupied or unoccupied.																		
114. Operate circle beds.																		
115. Check and position the signal cord for patient.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
116. Use overbed cradles.																		
117. Give general skin care to patients.																		
118. Use footboards.																		
119. Turn and place patient in correct body alignment.																		
120. Use sheepskins or lambswool pads.																		
121. Use trochanter or sandbags.																		
122. Teach patient, family, staff the relation of rehabilitation activities to daily living.																		
123. Use air rings or doughnuts.																		
124. Alternate pressure mattresses.																		
125. Prepare and give between-meal nourishment of liquids.																		
126. Prepare and give solid foods.																		

OCCUPATIONAL ANALYSIS: Nursing Services

	Performance.....	1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Response	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
Key	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
127. Irrigate rectum (give enema).																		
128. Empty drainage bottles and bags.																		
129. Assist with or apply T, straight, Scultetus', breast, and triangular (sling) binders.																		
130 Assist with or apply ace bandages and elastic stockings.																		
131. Test urine for sugar and acetone.																		
132. Prepare oral dose using measure for manufacturer's bottle or by mixing and diluting.																		
133. Prepare injections, using measured or sterilized dose.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
134. Receive urine specimen from patient, record pertinent data on container, and place in proper storage.																					
135. Select proper accessories for radiographic techniques.																					
136. Evaluate adequacy of work space.																					
137. Improvise or modify equipment for special requirements.																					
138. Prepare surgical tray.																					
139. Prepare general examination tray.																					
140. Prepare injection tray.																					
141. Prepare gynecological tray.																					
142. Prepare rectal tray.																					
143. Prepare and give vaginal douche.																					
144. Know and apply basic first aid techniques including cardiac resuscitation.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
145. Know the function of special beds and frames and be able to apply this knowledge.																		
146. Set up and assist with surgical procedures.																		
147. Recognize the need to redo a cast.																		
148. Set up and adjust traction equipment for use by patient.																		
149. Check and adjust, as necessary, limb braces for function, comfort, and fit.																		
150. Recognize the need for adjustment in traction devices.																		
151. Assist with EKG test.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
152. Know the function of limb braces and be able to apply them.																		
153. Apply simple casts and splints.																		
154. Recognize signs of "plaster breakdown" in casts, and repair same.																		
155. Recognize various orthopedic operative procedures and the equipment these procedures require.																		
156. Set up the complete surgical "back table" and "Mayo stand."																		
157. Perform routine measurement of range of motion and muscle testing.																		
158. Prepare statistical reports.																		
159. Inform and advise administration as to trends and significant data.																		
160. Take or transcribe minutes of meetings.																		
161. Check records (charts) for deficiencies.																		
162. Code diseases and operations, using prescribed classification system.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
163. Notify physicians concerning incomplete records.																		
164. Transcribe from recording machines using magnetic belts or recorded discs.																		
165. Type information onto various forms.																		
166. Change discs, belts, or tapes on recording equipment.																		
167. Make or approve menu changes.																		
168. Provide menu substitutions, second portions, or special items for patient needs.																		
169. Prepare menu slips and tray cards.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
170. Feed patient.																		
171. Check menu with tray contents and correct where needed.																		
172. Give tube feedings.																		
173. Collect food trays.																		
174. Assemble late or hold food trays.																		
175. Make recovery anesthetic bed.																		
176. Exercise precautions in administering and handling potentially dangerous agents.																		
177. Apply and remove braces.																		
178. Administer nasogastric.																		
179. Regulate intravenous fluids.																		
180. Irrigate bladder, colostomy, or wound.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
181. Instill solutions into bladder or wound.																		
182. Connect catheters and tubing to drainage.																		
183. Check and maintain drainage tubing with or without suction.																		
184. Insert urinary catheters.																		
185. Assist with or apply rib belts.																		
186. Apply hot bottle, hot and cold packs, hot and cold soaks, hot and cold compresses, or cold ice bag.																		
187. Administer sitz, tepid, and alcohol baths.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
188. Apply thermal blanket.																					
189. Give oral medications.																					
190. Do nose, throat, or wound cultures.																					
191. Give colostomy care.																					
192. Give perineal care.																					
193. Assist personnel in giving nursing care.																					
194. Review scheduled appointments with doctor.																					
195. Post totals from original entry record to combined or special journals.																					
196. Centrifuge sample of the urine specimen.																					
197. Perform bio-chemical tests (e.g. glucose or protein), using paper strips or tablet.																					
198. Perform bile tests.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
199. Examine urine specimens microscopically.																		
200. Obtain blood specimen from capillary.																		
201. Prepare and stain blood smears.																		
202. Perform hematocrit tests.																		
203. Perform red blood cell count (RBC).																		
204. Perform erythrocyte sedimentation rate (SED RATE).																		
205. Perform white blood cell count (WBC).																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
206. Operate colorimeter.																		
207. Innoculate specimen in culture media.																		
208. Assist in obtaining smears.																		
209. Assist in obtaining tissue specimens.																		
210. Use sterilization color indicators to test sterilizer.																		
211. Handle and store sterilized material to prevent contamination.																		
212. Assist physician during EKG test.																		
213. Mount EKG graph on card.																		
214. Operate EKG machine.																		
215. Prepare a tray for routine or special procedures.																		
216. Review and confirm doctor's orders to administer an injection.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance ..... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
217. Describe the nature of a patient's illness or injury.																		
218. Give tests for color blindness.																		
219. Administer heat, electrotherapy, light, and ultrasonic treatment.																		
220. Assist physician in performing visual or hearing acuity tests.																		
221. Assist physician in performing a cervical cauterization.																		
222. Assist physician in application of cast.																		
223. Streak plates.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
224. Examine specimens macroscopically.																					
225. Examine specimens microscopically.																					
226. Perform infectious mononucleosis procedures monospot or monotest.																					
227. Perform bleeding time procedures.																					
228. Perform differential cell counts.																					
229. Perform hemoglobin tests.																					
230. Perform acetone or ketone tests.																					
231. Perform bilirubin tests.																					
232. Perform ph tests.																					
233. Perform pregnancy tests.																					
234. Perform specific gravity tests.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
235. Perform total cholesterol tests.																		
236. Perform glucose tolerance tests.																		
237. Centrifuge and separate serum from clot.																		
238. Provide activities which develop self-expression or interpersonal relationships.																		
239. Provide activities to optimize strength, endurance, range of motion, and coordination.																		
240. Modify, adjust, or fabricate body supports or controls, as needed and as directed.																		
241. Check for proper fit on splints, body supports, and controls by observing white and red pressure spots.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
242. Assist in evaluation of client's work habits, tolerance level, and work skills.																		
243. Recommend other therapies to client as needs arise.																		
244. Review patient's clinical history.																		
245. Take X-rays (dental, abdominal, spinal, chest, etc.).																		
246. Administer oxygen by mask, tent, nasal devices or incubator.																		
247. Perform artificial respiration.																		
248. Give tracheotomy care.																		
249. Connect patient to monitor.																		
250. Mix and measure drug doses.																		
251. Recognize expected reactions to treatment.																		
252. Recognize complications or adverse reactions to treatments.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.

Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily

Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance

Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
253. Minimize hazards throughout the health care facility.																		
254. Arrange equipment for convenient and safe use.																		
255. Record patient's height and weight.																		
256. Utilize procedures to prevent dissemination of bacteria when making beds.																		
257. Take and record blood pressure.																		
258. Operate and adjust examining tables.																		
259. Instill solutions into eye, ear, or nose.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
260. Prepare medications.																		
261. Read cardiac monitors.																		
262. Drape patient for examination or treatment.																		
263. Understand cause and prevention of decubitt.																		
264. Have an understanding of fire prevention and control.																		
265. Introduce patient to activities appropriate to his or her capabilities.																		
266. Help patient make contacts with various agencies within the community.																		
267. Guide patient in use of prosthetic devices.																		
268. Help patient develop written and oral communication skills.																		
269. Instruct patient about available self-help devices.																		
270. Set up and regulate oxygen equipment.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
271. Check patients with respiratory problems for open airways.																		
272. Report immediately deviations of patient's vital signs from the normal.																		
273. Set up and regulate humidifier.																		
274. Follow procedures in care of isolated patients.																		
275. Instruct patient with regard to collection of specimen (e.g., fecal, urine, eye, nose, or throat).																		
276. Prepare, instruct, and assist patient during EKG test.																		
277. Give instructions to patient regarding medication.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
278. Persuade and motivate patients to participate in therapy sessions.																					
279. Direct patient to project completion by praise and encouragement.																					
280. Teach patient to perform activity by instructing and demonstrating.																					
281. Adapt teaching techniques to capabilities of patient.																					
282. Cut and remove sutures postoperatively.																					
283. Evaluate dietary habits and instruct patient on proper nutrition.																					
284. Suction patient's nose and throat passage.																					
285. Do pre-operative shaving.																					
286. Administer medications or isotopes to patients by injection or orally.																					
287. Perform superficial or specialized examination of patients.																					
288. Abstract simple data from patient's chart.																					

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
289. Prep patient using correct procedures and solutions.																		
290. Prepare patient for skeletal traction.																		
291. Teach patients how to use crutches, walkers, etc.																		
292. Assist patients with vocational or family counseling.																		
293. Give whirlpool treatments.																		
294. Teach patients exercise programs.																		
295. Assist with the administration of local anesthetics.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
296. Dispense medications when ordered by health professional.																		
297. Deliver or remove equipment and supplies from contaminated room.																		
298. Dispose of contaminated materials and equipment.																		
299. Change soiled linen and clothes.																		
300. Clean patient unit furniture.																		
301. Clean and maintain service area and equipment, within area of responsibility.																		
302. Order or inventory and store equipment and supplies.																		
303. Verify performance of instruments and devices against manufacturer's specifications.																		
304. Determine if equipment needs repair.																		
305. Schedule or perform maintenance on equipment.																		
306. Clean, sharpen, and maintain instruments or equipment as required.																		

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
307. Prepare instruments for sterilization (chemical, autoclaving, or dry heat).																		
308. Establish and maintain chain of antisepsis.																		
309. Test sterilizer with sterilization color indicators.																		
310. Sterilize instruments by chemical, autoclaving, or dry heat procedures.																		
311. Inspect all areas and rooms for proper housekeeping, temperature, and adequate supplies.																		
312. Clean aspiration equipment.																		
313. Clean and maintain EKG equipment after test.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
314. Clean sterilizing equipment.																		
315. Store or dispose of used blood containers and pilot tubes.																		
316. Check invoices against purchase orders.																		
317. Organize storage areas for equipment, supplies and drugs.																		
318. Inventory equipment and supplies.																		
319. Sort requisitions and charge slips.																		
320. Follow procedures for control and security of medical supplies, drugs, and equipment.																		
321. Other Competencies (List Below)																		

APPENDIX F

MEDICAL LABORATORY SERVICES SURVEY INSTRUMENT

EAST TEXAS STATE UNIVERSITY

Dear Colleague:

Because you have been identified as a health professional whose expertise will aid us in conducting valid research, we hope that you will take the time to complete the enclosed health occupations survey instrument. This survey is being conducted by the Occupational Curriculum Laboratory, East Texas State University, which has been awarded funds through the Texas Education Agency to conduct research in the Allied Health careers area.

Specifically, our objective is to determine entry-level competencies (skills) for jobs in the areas of Nursing Support Services, Dental Support Services, and Medical Laboratory Services. Additionally, we are seeking information regarding the relative importance of each skill, the frequency with which each skill is performed, and the level at which training for this competency could occur.

We feel that by surveying health professionals who actually employ individuals for these occupations, we can gain extremely accurate information regarding what is actually expected of these workers on the job. In turn, this information will be extremely valuable in providing educators suggested avenues for training workers for these jobs.

Please do not be discouraged by the size of the survey instrument itself. Each statement was drawn from validated studies which specified the tasks that workers in these areas might perform. This does not necessarily mean that you, as a consumer of these people, expect these same skills in your individual setting.

If you feel that someone else within your organization could more appropriately react to the survey, please pass it along to that individual. After the instrument is completed, fold the cover so that the postpaid return address is on the outside flap, staple or tape the cover, and deposit for mailing.

If you wish to receive an abstract of the results of the study once it has been completed, please complete question 13 on the Personal Data section of the survey. Your participation by completing the survey instrument will certainly enhance the validity of our study, and your cooperation will be greatly appreciated.

Sincerely,

James J. Zukowski

James J. Zukowski, Ed.D.
Project Investigator

Diane E. Johnson

Diane E. Johnson
Researcher

T E X A S   M E D I C A L   A S S O C I A T I O N
1801 NORTH LAMAR BLVD • AUSTIN TEXAS 78701 • AC 512 477 6704

February 5, 1980

James J. Zukowski, EdD
Principal Investigator
Occupational Curriculum Laboratory
East Texas State University
Commerce, Texas 75428

Dear Dr. Zukowski:

I am pleased to report that the Texas Medical Association's Executive Board has had the opportunity to consider your plans to conduct a study to identify competencies required of health occupations workers by professional employers in a variety of practice settings.

The Executive Board agrees with the recommendation of its Committee on Health Careers and Council on Medical Education that the information sought in your research project has the potential to offer an important and pertinent understanding of the requirements for education and employability of health occupation workers.

May we offer our encouragement for you to proceed with the study. We also look forward to receiving a summary of the results of the study.

Best wishes.

Sincerely,

A Hendler

Albert F. Hendler, MD, Chairman
Committee on Health Careers

AFH:MB:pi

cc: William F. Ross, MD
C. Lincoln Williston

100

PERSONAL DATA SHEET

Please complete this information sheet before beginning the survey. Respond to each item by checking the most accurate answer or writing the requested information in the blank. Your responses to items on this sheet will be used to compare your competency ratings, which follow in this survey, with employers of entry-level personnel from different regions and professional practice settings across the state.

---

1. Name ____________________ (optional)
2. Position Title ____________________ (optional)
3. Mailing Address ____________________ (optional)
____________________ (optional)
4. Length of time in present position ____________________
5. Age ____ 6. Sex ____ 7. Certificate, License or Registration
____
8. Nature of your training in occupational area analyzed by this survey (check one)
____ None
____ On-the-job training: How Long? (circle one)
2 wks 1 mo 2 mos 3 mos longer than 3 mos
____ Certificate or diploma program: How long?
6 mos 1 yr 2 yrs 3 yrs or more
____ Associate degree
____ Baccalaureate degree
____ Post-baccalaureate degree: Specify ____________
9. Professional practice setting (check one)
____ Hospital:
Specify number of beds ______________
Specify area of patient care or hospital service in which you are employed? ______________
____ Nursing Home: Specify number of beds ____________
____ Private or Commerical Laboratory
____ Private Practice: Describe ______________
____

10. Type or supervision (you offer to individuals in the health occupations that will be analyzed by this survey) (check one)
____ Close supervision; involved in evaluation of employee's performance
____ Close supervision; not involved in evaluation of employee's performance
____ Occasional supervision; involved in evaluation of employee's performance
____ Occasional supervision; not involved in evaluation of employee's performance
____ No direct supervision; involved in evaluation of employee's performance
____ No direct supervision; not involved in evaluation of employee's performance
11. Labor market survey: For each of the following occupational titles, indicate (1) the number of individuals currently employed, (2) the number of present vacancies, and (3) the additional number of positions available in the next twelve months.
1 2 3
____ ____ ____ Medical Laboratory Assistant
____ ____ ____ Medical Laboratory Technician
12. What degree of difficulty do you have in filling the vacancies noted in Item 11?
little difficulty much difficulty
1 2 3 4 5
13. Would you like to receive a copy of the results of this survey?
Yes No

RELATED TITLES

The job titles included in the 'Performance' section of the survey are common terms which may or may not be used in your particular health setting. For the purposes of this investigation, we are including the following related titles to clarify the positions that are being examined.

'Performance' Title	Related Titles
DENTAL SERVICES	
Dental Assistant	Dental Office Assistant
Dental Laboratory Technician	Ceramics Technician, Ceramist, Dental Ceramist, Dental Technician, Dental Finisher, Denture Model Maker, Denture Waxer, Orthodontic Technician
Dental Hygienist	Oral Hygienist
MEDICAL LABORATORY SERVICES	
Medical Laboratory Assistant	Laboratory Aide, Laboratory Assistant
Medical Laboratory Technician	Certified Laboratory Assistant, Cytotechnologist, Histologic Technician, Medical Technician
NURSING SERVICES	
Nursing Assistant	Aide, Hospital Attendant, Nurse Aide, Nurse Assistant, Nursing Attendant, Orderly
Medical Assistant	Medical Office Assistant, Osteopathic Medical Assistant
L.V.N.	Licensed Practical Nurse (LPN), Licensed Vocational Nurse (LVN), Vocational Nurse

INTRODUCTION

By accurately completing this survey, you will provide valuable information regarding the competencies that should be possessed by an entry-level employee in your health services setting. The information gathered by the survey may be used to develop training materials which appropriately prepare an individual for the entry-level health occupation noted above.

INSTRUCTIONS

1. As you read each statement in the list, check one of the following numerals in the Performance section to answer the question: "Who actually performs this competency, on more than 50 percent of the occasions, in your health field setting?"

   1 means No One (competency statement does not apply), 2 means Other Employee (than those listed), 3 means Medical Laboratory Assistant, 4 means Medical Laboratory Technician, 5 means Disregard (do not answer)

2. If you did not check "1" in Step 1, then check one of the following letters in the Use Frequency section to indicate how often the individual (or individuals) in the occupation performs the competency in your health setting.

   I means Infrequently (less often than monthly), M means Monthly, W means Weekly, D means Daily

3. After you have completed the above steps (i.e., you did not check "1" in Step 1), check one of the following numerals in the Importance section to indicate the significance or priority of the competency to the overall job of the individual in the occupation selected in Step 1.

   1 means No Importance, 2 means Little Importance, 3 means Undecided (cannot estimate importance), 4 means Some Importance, and 5 means Much Importance

4. After you have completed the above steps (i.e., you did not check "1" in Step 1), check one of the following letters to answer the question: "What is the appropriate level of training needed by an individual, in the occupation selected in Step 1, in order to sufficiently prepare the person to perform the competency in your health setting?"

   a means On-the-job, b means Secondary (Health Occupations Education or HOE), c means Postsecondary including certificate programs), and d means Postsecondary (including degree programs)

5. If other competencies are expected in your organization for an entry-level employee in the occupation identified in Step 1, then write the additional competency statements in the Other Competencies section, located at the end of the list of competencies, and complete Steps 1-4 for each statement.

PLEASE TURN TO NEXT PAGE AND BEGIN WITH STEP 1

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.																		
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).																		
3. Orient new personnel to unit facilities, routines, and other personnel.																		
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.																		
5. Practice established routines and policies of the health care facility.																		
6. Give "on-the-job" instruction.																		
7. Develop criteria for the selection of records for review and retention.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
8. Develop job description.																		
9. Interview, evaluate, or hire prospective personnel.																		
10. Insure that all subordinates are on duty.																		
11. Attend and participate in staff meetings.																		
12. Provide liaison between doctor and other professional associates.																		
13. Teach safety techniques as needed.																		
14. Inform personnel of potential hazards in their working areas.																		
15. Assist in the orientation of volunteers, students, and new staff.																		
16. Recommend materials to be used in training volunteers.																		
17. Participate in public relations activities as directed.																		
18. Obtain information from patient or family.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
19. Receive patients, explain tests and procedures to them, and allay their fears.																		
20. Attend to patient's comfort before, during, and after examination, tests, or treatment.																		
21. Assist in establishing a comfortable relationship between the patient and the health care professional.																		
22. Interpret patient's signs, symptoms, and behaviors.																		
23. Observe patient's general physical condition, appearance, and behavior.																		
24. Record and chart vital signs and/or other conditions as directed by the health care professional.																		
25. Obtain charts of patients for whom information is requested.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
26. Handle telephone calls.																		
27. Mount, label, and file radiographs.																		
28. Apply restraints.																		
29. Open sterile packages and packs.																		
30. Assist with or apply T, straight, Scultetus', breast, and triangular (sling) binders.																		
31. Calibrate isotopes against a standard.																		
32. Know the function of special beds and frames, and be able to apply this knowledge.																		
33. Prepare statistical reports.																		
34. Receive and preserve biopsy specimens.																		
35. Load and unload film units.																		
36. Prepare contrast media, such as barium sulphate.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
37. Take X-rays (dental, abdominal, spinal, chest, etc.)																		
38. Operate image intensifier fluoroscope units.																		
39. Assist with X-rays for cholecystographic studies.																		
40. Assist with X-rays of small intestine and pelvimetric studies.																		
41. Read cardiac monitors.																		
42. Have an understanding of fire prevention and control.																		
43. Report immediately, deviations of patients' vital signs from the normal.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
44. Direct patient to project completion by praise and encouragement.																					
45. Dispose of contaminated materials and equipment.																					
46. Clean and maintain service area and equipment within area of responsibility.																					
47. Clean and polish removable appliances.																					
48. Check and record temperature of appliances and equipment.																					
49. Follow procedures for control and security of medical supplies, drugs, and equipment.																					
50. Assist in research assignments.																					
51. Charge or code charge work done.																					
52. Clean area and equipment aseptically.																					
53. Collect blood specimens from the patients.																					
54. Collect fecal or urine specimens from the patients.																					

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
55. Inventory and order supplies.																		
56. Perform electrocardiogram (EKG) tests.																		
57. Perform preventive maintenance on laboratory equipment.																		
58. Perform sperm counts.																		
59. Prepare and process specimens.																		
60. Prepare reagents.																		
61. Prepare specimens for shipment.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
62. Prepare specimens for training or reference.																					
63. Prepare standards.																					
64. Operate automatic (continuous flow--dual channel) analyzers.																					
65. Operate automatic (Coulter--single channel) cell counter.																					
66. Operate analytical balance weighing to nearest 0.1 milligram or less.																					
67. Operate blood gas apparatus.																					
68. Operate chloridometer.																					
69. Operate colorimeter.																					
70. Operate differential cell counter.																					
71. Operate distillation apparatus.																					
72. Operate electrocardiograph.																					

OCCUPATIONAL ANALYSIS: **Medical Laboratory Services**

	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Response	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
Key	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
73. Operate regular flame photometer.																		
74. Operate hemoglobinometer.																		
75. Operate microhematocrit reader.																		
76. Operate pH meter.																		
77. Operate visible range or ultraviolet spectrophotometer.																		
78. Use blood bank refrigerator.																		
79. Use general laboratory centrifuge.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
80. Use microhematocrit centrifuge.																		
81. Use separatory funnel extraction apparatus.																		
82. Use heating blocks.																		
83. Use aerobic incubator.																		
84. Use anaerobic incubator.																		
85. Use microscopes.																		
86. Use automatic or semiautomatic pipette.																		
87. Use manual pipette.																		
88. Use macro (0.1 mil. or larger) pipette.																		
89. Use micro (less than 0.1 mil.) pipette.																		
90. Use autoclave sterilizer.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
91. Use Burette or visual end point titrators.																		
92. Use waterbaths.																		
93. Identify and classify pathogenic bacteria.																		
94. Inoculate tubed media.																		
95. Operate anaerobic devices.																		
96. Perform antibiotic and antimicrobial agent sensitivity tests.																		
97. Prepare culture media.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
98. Prepare subculture and smears.																		
99. Receive and primary process all cultures except blood, T.B., and fungus.																		
100. Receive and process T.B. cultures.																		
101. Receive and process blood cultures.																		
102. Record or report colony counts on urine.																		
103. Stain bacteriological smears.																		
104. Streak plates.																		
105. Cultivate mycology specimens for primary isolation.																		
106. Examine mycology specimens microscopically.																		
107. Perform Kolt preparation for dermatophytes.																		
108. Stain mycology specimens.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
109. Examine specimens macroscopically.																		
110. Examine specimens microscopically.																		
111. Identify protozoans, cestodes, nematodes, and trematodes.																		
112. Identify parasitic and disease-carrying anthropods.																		
113. Perform concentration and flotation techniques.																		
114. Stain parasitological smears.																		
115. Perform antistreptolysin "O" titers.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
116. Perform "C" reactive protein tests.																					
117. Perform febrile agglutination (e.g. salmonella) tests.																					
118. Perform heterophile presumptive test.																					
119. Perform infectious mononucleosis procedures, monospot, or monotest.																					
120. Perform latex fixation test.																					
121. Perform rheumatoid arthritis (RA) test.																					
122. Perform and read agglutination (e.g. cold agglutinations) tests.																					
123. Perform VDRL test.																					
124. Prepare antigens.																					
125. Perform bleeding time procedures.																					
126. Prepare and stain blood smears.																					

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Response Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Key Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
127. Perform clot retraction test.																		
128. Perform venous whole blood coagulation time tests.																		
129. Perform differential cell counts.																		
130. Perform eosinophile count.																		
131. Perform erythrocyte fragility tests.																		
132. Calculate erythrocyte indices.																		
133. Perform fibrinogen deficiency test.																		

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
134. Perform hematocrit tests.																					
135. Perform hemoglobin tests.																					
136. Prepare lupus erythematosus (L.E.) slides.																					
137. Microscopically identify L.E. cells.																					
138. Stain and read malaria smears.																					
139. Identify morphological variations of red or white blood cells.																					
140. Perform partial thromboplastin time (PTT) test.																					
141. Perform platelet count.																					
142. Perform prothrombin time test.																					
143. Perform red blood cell count (RBC).																					
144. Perform reticulocyte cell count.																					

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
145. Perform erythrocyte sedimentation rate.																		
146. Perform sickle cell preparations.																		
147. Perform spinal fluid cell counts.																		
148. Perform white blood cell count (WBC).																		
149. Examine urine specimens macroscopically.																		
150. Examine urine specimens microscopically.																		
151. Perform acetone or ketone tests.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
152. Perform Addis counts.																		
153. Perform Bence-Jones protein tests.																		
154. Perform bile tests.																		
155. Perform bilirubin tests.																		
156. Perform true glucose tests.																		
157. Perform urine hemoglobin (blood) test.																		
158. Perform pH tests.																		
159. Perform porphyrins tests.																		
160. Perform pregnancy tests.																		
161. Perform qualitative urine protein tests.																		
162. Perform urine reducing substance.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance						Use Frequency					Importance						Training			
	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
163. Perform specific gravity tests.																					
164. Perform urobilinogin tests.																					
165. Perform acid phosphatase test.																					
166. Perform serum albumin tests.																					
167. Perform A/G ratio.																					
168. Perform alkaline phosphatase test.																					
169. Perform amylase test.																					

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
170. Perform barbituate-level test.																		
171. Perform bromosulphalein retention (BSP) tests.																		
172. Perform calcium tests.																		
173. Perform carbon dioxide determinations.																		
174. Perform cephalin flocculations.																		
175. Perform chlorides tests.																		
176. Perform total cholesterol tests.																		
177. Perform creatine tests.																		
178. Perform creatine phosphokinase (CPK) tests.																		
179. Perform serum creatine tests.																		
180. Perform blood alcohol tests.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance ..... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
181. Perform enzyme analysis tests.																		
182. Perform gastric analysis (e.g. activity or Diagnex Blue).																		
183. Perform glucose tolerance tests.																		
184. Perform serum glutamic oxalacetic transaminase (SGOT) test.																		
185. Perform serum glutamic pyruvic transaminase (SGPT) test.																		
186. Perform icterus index tests.																		
187. Perform lactic dehydrogenase (LDH) tests.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
188. Perform lipase tests.																		
189. Perform blood oxygen tests.																		
190. Perform blood pH tests.																		
191. Perform phenosulfonphthalein (PSP) excretion tests.																		
192. Perform phosphorus tests.																		
193. Perform potassium determinations.																		
194. Perform urine prophyrin and/or prophobilirogen tests.																		
195. Perform slide or tube test for pregnancy.																		
196. Perform total protein tests.																		
197. Perform salicylate-level tests.																		
198. Perform sodium determinations.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
199. Perform thymol turbidity tests.																		
200. Perform blood urea nitrogen (BUN) tests.																		
201. Centrifuge and separate serum from a clot.																		
202. Check and record temperatures of refrigerators and/or alarms.																		
203. Crossmatch blood.																		
204. Dispose of unused blood after expiration time limit.																		
205. Maintain blood inventory; count number of bottles on hand.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
206. Order blood by phone from suppliers.																		
207. Organize and store blood.																		
208. Perform antibody screen and identification tests.																		
209. Perform direct and indirect Coombs tests.																		
210. Perform genotype of blood.																		
211. Perform transfusion reaction studies.																		
212. Prepare and read slide agglutination reactions.																		
213. Prepare and read tube agglutination reactions.																		
214. Record information on blood record card.																		
215. Test blood for ABO grouping and ABO sub-grouping.																		
216. Test blood for Rh or Du factors.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
217. Stain pap smears.																		
218. Assign personnel to duty positions.																		
219. Assign space for equipment and supplies.																		
220. Assign specific work to individuals.																		
221. Assure the availability of equipment and supplies.																		
222. Develop or improve work methods.																		
223. Develop or improve laboratory procedures.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
224. Develop or revise the organization of the section.																		
225. Establish procedures for special tests.																		
226. Establish quality control function.																		
227. Establish work priorities and schedule work assignments.																		
228. Plan and schedule work assignments.																		
229. Plan record keeping for the section.																		
230. Plan work flow.																		
231. Requisition supplies.																		
232. Requisition equipment.																		
233. Direct the maintenance and utilization of equipment.																		
234. Direct the maintenance and utilization of supplies.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
235. Direct subordinates in maintaining performance standards.																		
236. Communicate laboratory findings to physicians.																		
237. Explain laboratory findings to physicians.																		
238. Explain laboratory tests to physicians.																		
239. Explain laboratory tests to hospital staff.																		
240. Explain laboratory tests to patients.																		
241. Instruct patients regarding laboratory findings.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
242. Determine if equipment repair is needed.																		
243. Evaluate the accuracy and adequacy of routine reports.																		
244. Evaluate the maintenance and use of equipment.																		
245. Evaluate the maintenance and use of supplies.																		
246. Evaluate the maintenance and use of work space.																		
247. Evaluate work performance of subordinates.																		
248. Initiate reports on unsatisfactory equipment.																		
249. Resolve technical problems of subordinates.																		
250. Select textbooks and library reference materials.																		
251. Log incoming or outgoing specimens.																		
252. Maintain and revise stock levels.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
253. Maintain files of laboratory records or reports.																		
254. Purchase or requisition supplies.																		
255. Receive incoming supplies.																		
256. Supervise the maintenance of laboratory supplies.																		
257. Consult with health professionals on purchasing, constructing, or using special appliances.																		
258. Maintain standards of employee's personal hygiene as related to job performance.																		
259. Inform personnel of new or changed policies and procedures.																		

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
260. Develop hospital disaster plan.																		
261. Attend meetings and participate in community activities related to doctor's practice.																		
262. Arrange meetings, conferences, or travel accommodations.																		
263. Train volunteers in specific techniques.																		
264. Conduct tours of facilities.																		
265. Assist patient into and out of bed.																		
266. Transport patient on stretcher or wheelchair.																		
267. Assist in resolving patient complaints.																		
268. Explain fees to patient.																		
269. Observe negative or positive physical and emotional responses to treatments, medications, or nursing care.																		
270. Maintain record of all requests for patient information.																		

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
271. Prepare patient record folder or chart.																		
272. Prepare requests for vacation and sick leave.																		
273. Operate office business machines.																		
274. Maintain a fee schedule for services.																		
275. Transcribe physician's orders.																		
276. Follow established procedures for processing authorization forms including autopsy, surgery, diagnostic tests, and discharge forms.																		
277. Adjust side rails and height of bed.																		

	1	2	3	4	5		1	M	W	D		1	2	3	4	5		a	b	c	d
278. Assay wet chemical solutions for activity and contaminants.																					
279. Take and process X-rays.																					
280. Adjust voltage, amperage, and timer of X-ray machine.																					
281. Maintain daily production record.																					
282. Assist with or apply rib belts.																					
283. Assist in obtaining tissue specimens.																					
284. Monitor EKG graph for abnormal or erratic tracings.																					
285. Describe the nature of patient's illness or injury.																					
286. Take X-rays of ribs and sternum or extremities.																					
287. Assist with laminograms, mammograms, chlogiograms, intravenous pyelograms, and IV's.																					
288. Assist with upper GI series, stereoscopic X-rays, ventricueograms.																					

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
289. Assist with X-rays for contrast studies of large bowel or colon and esophagus.																		
290. Minimize hazards throughout the health care facility.																		
291. Operate and adjust examining tables.																		
292. Prepare instruments for sterilization (chemical, autoclaving, dry heat).																		
293. Organize storage areas for equipment, supplies, and drugs.																		
294. Other Competencies (List Below)																		

APPENDIX G

DENTAL SERVICES
ADJUSTED FREQUENCIES

Response Key

Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.	46.8	11.7	34.0	1.1	6.4	15.4	5.8	23.1	55.8	3.8	1.9	3.8	15.4	75.0	76.9	5.8	7.7	9.6
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).	23.8	8.9	48.5	1.0	17.8	18.2	10.4	9.1	62.3	6.5	5.2	2.6	29.9	55.8	71.6	7.3	5.4	17.6
3. Orient new personnel to unit facilities, routines, and other personnel.	23.0	8.0	56.0		13.0	47.9	2.8	5.6	43.7	2.7	2.7	4.1	32.4	58.1	79.7	11.0	7.2	5.8
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.	57.7	9.3	25.8		7.2	24.4	4.4	2.2	68.9	13.3			20.0	66.7	51.2	18.6	16.3	14.0
5. Practice established routines and policies of the health care facility.	16.0	13.8	52.1	2.1	16.0	6.6	2.6	2.6	88.2			2.6	5.3	92.1	64.4	7.2	13.7	11.0
6. Supervise subordinates within the health care facility.	41.2	19.6	18.6		20.6	16.9		6.8	76.3	3.6			29.1	67.3	52.7	5.4	10.9	29.1
7. Give "on-the-job" instruction.	36.6	13.9	30.7	1.0	17.8	18.2		9.1	63.6	3.2			24.2	72.6	54.8	5.8	11.3	19.4

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
8. Establish work priorities and schedule work assignments.	41.6	23.8	21.8		12.9	6.5	3.2	11.3	79.0	3.2	1.6	1.6	3.2	90.3	59.7	4.8	12.9	22.6
9. Identify operational deficiencies and recommend corrections.	32.7	25.7	33.7		7.9	11.9	13.4		74.6			3.0	20.9	76.1	64.2	16.4	1.5	17.9
10. Evaluate subordinate employee performance.	64.2	25.3	7.4		3.2	8.6	42.9		48.6				31.4	68.6	51.4	8.6	8.6	31.4
11. Consult with health professionals on purchasing, constructing, or using special appliances.	57.4	11.9	14.9	2.0	13.9	20.8	20.8	20.8	37.5	4.2		4.2	22.9	68.8	53.3	6.7	6.7	28.9
12. Maintain standards of employees' personal hygiene as related to job performance.	59.6	14.1	16.2	1.0	9.1	17.8	2.2		80.0	4.4		2.2	24.4	68.9	61.9	7.1	11.9	19.0
13. Interview, evaluate, or hire prospective personnel.	54.8	33.3	11.8			56.4	5.1	2.6	35.9				30.8	69.2	53.8	10.3	7.7	28.2
14. Insure that all subordinates are on duty.	53.6	42.0	4.3				3.3		96.7					100.0	63.3	20.0		16.7
15. Attend and participate in staff meetings.	20.0	30.0	40.0		10.0	14.5	52.7	21.8	10.9		1.8	7.3	18.2	72.7	77.6	2.0		20.4
16. Develop policies and establish departmental procedures.	67.1	25.7	7.1			14.3	38.1	19.0	28.6					100.0	85.7			14.3
17. Inform personnel of new or changed policies and procedures.	51.9	43.2	4.9			28.9	24.4	6.7	26.7		10.9	23.6	21.8	43.6	45.7	11.4	11.4	20.0
18. Provide liaison between doctor and other professioanl associates.	54.1	26.5	16.3		3.1	26.8	7.3	14.6	48.8			4.8	52.4	42.9	75.0	4.7	9.4	10.9

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygieni
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
19. Review and approve employee's payroll time and salary.	42.9	38.5	15.4		3.3	15.6	24.4	20.0	40.0		11.1		15.6	73.3	53.3	22.2	6.7	17.8
20. Coordinate work schedules with other departments.	60.9	23.9	14.1		1.1	13.5	21.6	16.2	48.6		2.7	5.4	17.2	75.7	61.1	11.1	8.3	16.7
21. Teach special procedures to department members, students, and health care professionals.	63.0	17.4	14.1		5.4	58.8	17.6	5.9	17.6	8.8	2.9	5.9	23.4	41.2	54.8	12.9	3.2	29.0
22. Teach safety techniques as needed.	62.6	19.8	13.2		4.4	47.2	8.3	2.8	41.7	8.3	8.3		11.1	72.2	70.6	8.8	2.9	14.7
23. Inform personnel of potential hazards in their working areas.	45.5	13.6	36.4	1.1	3.4	31.9	8.5	57.4	2.1		2.1	2.1	41.2	72.3	80.9	8.5	4.3	4.3
24. Demonstrate tact in giving and withholding information concerning patient care or operations of the health care facility.	34.7	24.2	31.6	1.1	8.4	7.8	4.7	10.9	75.0	1.6	1.6	3.1	16.2	76.6	69.0	8.6	5.2	13.8
25. Attend meetings and participate in community activities related to doctor's practice.	31.3	22.2	34.3	1.0	11.1	45.7	21.4	1.4	30.0	3.0	4.5	7.5	15.6	47.8	63.9	11.5	4.9	18.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
26. Assist in the orientation of volunteers, students and new staff.	29.5	25.3	42.1		3.2	52.9	4.4	1.5	39.7	3.1	4.6	7.7	26.2	58.5	83.1	6.2	1.5	7.7
27. Conduct tours of facilities.	38.9	17.9	33.7		9.5	53.2	16.1	8.1	21.0	5.1	10.2	30.5	27.1	27.1	74.6	16.9	1.7	5.1
28. Obtain and deliver supplies for patient's entertainment or recreation.	44.4	30.3	21.2		4.0	16.7	20.4	7.4	55.6	7.5	18.9	17.0	15.1	41.5	79.2	11.3	1.9	7.5
29. Inventory, sign for, and place patient's personal possessions in safe place.	60.0	13.7	23.2		3.2	32.4	10.8	5.4	51.4		8.1		40.5	51.4	73.0	8.1	2.7	16.2
30. Assist patient with personal hygiene and grooming.	33.7	11.2	33.7		21.4	10.6	3.0		86.4		4.5	3.0	18.2	74.2	60.9	1.6	7.8	29.7
31. Assist in resolving patient complaints.	20.2	40.4	36.4		3.0	29.5	1.3	19.2	50.0		1.3		15.4	83.3	72.4	10.5	6.6	10.5
32. Teach patient or family preventative general health care.	36.4	12.1	26.3		25.3	4.7	1.6	3.1	90.6		1.6		10.9	87.5	54.7	7.8	7.8	29.7
33. Obtain information from patient or family.	8.4	26.3	54.7	1.1	9.5	6.8	13.6	6.8	72.7		1.1	2.3	22.7	73.9	74.7	12.0	3.6	9.6
34. Receive patients, explain tests and procedures to them, and allay their fears.	18.2	24.2	48.5	1.0	8.1	12.2	2.4	2.4	82.9		1.2	2.4	13.4	82.9	78.0	7.3	6.1	8.5
35. Attend to patient's comfort before, during, and after examination, tests, or treatment.	14.1	15.2	59.6		11.1	10.5	4.7	1.2	83.7		1.2	2.3	10.5	86.0	77.9	8.1	3.5	10.5
36. Aid patient in completing insurance forms.	25.3	34.3	39.4		1.0	9.3	4.0	13.3	73.3		1.3	5.3	29.3	64.0	74.0	17.8	1.4	6.8

OCCUPATIONAL ANALYSIS: Dental Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygieni
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
37. Explain postoperative instructions to patient.	20.7	18.5	57.6		3.3	8.3	6.9	25.0	59.7				31.1	68.9	76.1	9.9	4.2	9.2
38. Explain fees to patient.	26.1	33.7	37.0		3.3	2.9	5.9	5.9	85.3				19.7	80.3	72.7	16.7	4.5	6.1
39. Assist patient in planning for health care facility.	60.0	12.2	15.6		12.2	18.9		10.8	70.3	5.4	5.4		21.6	67.6	56.8	16.2	8.1	18.9
40. Explain therapy procedures in lay terms.	41.3	18.5	33.7		6.5	5.3	14.0	3.5	77.2				21.1	78.9	70.2	15.8	5.3	7.0
41. Explain follow-up services to patient.	26.0	20.8	42.7	2.1	8.3	6.8	14.9	4.1	74.3			1.4	38.9	59.7	65.3	12.5	13.9	6.9
42. Assist in establishing a comfortable relationship between the patient and the health care professional.	13.5	14.6	59.4	2.1	10.4	4.8	3.6	3.6	88.0			2.4	12.0	85.5	74.7	9.6	6.0	8.4
43. Observe negative or positive physical and emotional responses to treatments.	22.4	9.2	53.1	2.0	13.3	13.0	9.1	3.9	74.0		1.4	4.2	27.8	66.7	72.6	13.7	4.1	9.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
44. Interpret patient's signs, symptoms, and behaviors.	19.8	21.9	42.7		15.6	27.5	3.7	3.7	65.0	6.3		6.3	30.0	57.5	56.4	14.1	6.4	23.1
45. Observe patient's general physical condition, appearance, and behavior.	30.2	12.5	44.8		12.5	11.6	1.4	2.9	84.1	5.8	1.4	1.4	29.0	62.3	68.7	7.5	4.5	19.4
46. Record and chart vital signs, and/or other conditions as directed by health care professional.	26.1	15.2	45.7		13.0	10.1	4.3	8.7	76.8	2.9		1.4	20.3	75.4	70.1	7.5	7.5	14.9
47. Conduct routine financial matters of employer, including collecting fees, making deposits, and sending statements.	27.1	38.5	31.3		3.1	5.7	2.9	4.3	87.1	2.9			11.4	85.7	68.7	14.9	4.5	11.9
48. Maintain petty cash accounts.	18.8	35.4	41.7		4.2	3.8	5.1	5.1	84.8	2.5	1.3		26.6	69.6	65.3	16.0	9.3	8.0
49. Maintain appointment control.	5.2	46.9	43.8		4.2	6.7	2.2	13.5	77.5				12.4	87.6	72.4	18.4	3.4	5.7
50. Complete insurance forms.	16.7	35.4	37.5		10.4	2.5		8.6	88.9	2.5			21.0	76.5	70.1	13.0	3.9	13.0
51. Maintain state and federal tax information and prepare tax forms.	30.2	35.4	33.3		1.0	1.5	15.4	6.2	76.9				15.4	84.6	57.1	22.2	1.6	19.0
52. Schedule patient treatment sessions.	2.1	33.3	54.2		10.4			4.3	95.7				9.8	90.2	71.7	16.3	4.3	7.6
53. Maintain record of all requests for patient information.	14.6	38.5	43.8		3.1	3.7		6.3	90.0		1.2	1.2	35.8	61.7	68.8	18.2	7.8	5.2
54. Obtain charts of patients for whom information is requested.	6.3	46.9	44.8		2.1	6.7		15.7	77.5			1.2	39.5	59.3	73.0	13.5	5.6	7.9

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
55. Prepare patient record folder or chart.	5.2	25.8	64.9		4.1	1.1			98.9				20.7	79.3	76.1	12.0	6.5	4.3
56. Sort, file, and organize documents, certificates, and patient records.		42.3	51.5	1.0	5.2	1.0		6.2	92.8			1.1	29.5	69.5	80.0	8.4	3.2	7.4
57. Care for preliminary or final dental impressions.	21.9	8.3	59.4	6.3	4.2			4.1	95.9			1.4	6.8	91.9	77.0	8.1	6.8	8.1
58. Process mail and correspondence (both incoming and outgoing).	8.3	44.8	41.7	1.0	4.2			1.2	98.8		1.2		29.1	69.8	71.4	16.7	4.8	7.1
59. Prepare requests for vacation or sick leave.	48.4	24.7	23.7		3.2	8.9	4.4	11.1	75.6		6.7		31.1	62.2	66.7	22.2	4.4	6.7
60. Handle telephone calls.	3.1	35.1	54.6		7.2				100.0				5.4	94.6	76.7	12.2	3.3	7.8
61. Prepare correspondence, reports, or summaries, but not forms.	25.8	32.0	39.2		3.1		7.2	4.3	88.4			2.9	27.5	69.6	71.0	15.9	2.9	10.1

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
62. File dental radiographs.	3.0	25.3	63.6		8.1	2.1		2.1	95.7		2.1	2.1	19.1	76.6	71.3	16.0	4.3	8.5
63. Maintain a patient recall system.	9.1	21.2	49.5		20.2		6.8	1.1	92.0			3.4	9.1	87.5	67.0	18.2	3.4	11.4
64. Record patient's medical or dental history.	3.0	16.2	66.7		14.1			2.1	97.9				11.6	88.4	64.2	16.8	8.4	10.5
65. Check and maintain charting of treatments, medications, procedures, orders, and observations.	11.1	23.2	58.6		7.1				100.0				9.1	90.9	71.8	16.5	3.5	8.2
66. Operate office business machines.	10.1	49.5	39.4		1.0			4.6	95.4		9.1	2.3	28.4	60.2	76.1	14.8	3.4	5.7
67. Initiate and maintain a medical record file for patients.	18.2	46.5	33.3		2.0				100.0				15.2	84.8	78.5	12.7	1.3	7.6
68. Establish and maintain a control system for location of medical record folders.	20.6	49.5	28.9		1.0	1.3	4.0	4.0	90.7		4.0	5.3	17.3	73.3	76.0	12.0	1.3	10.7
69. Maintain catalogs of supplies and equipment.	31.3	31.3	37.4			4.7	20.3	21.9	53.1		9.0	1.5	32.8	56.7	78.5	10.8	1.5	9.2
70. Maintain a fee schedule for services.	22.1	40.0	32.6	3.2	2.1	16.7	5.6		77.8		6.9		20.8	72.2	78.6	8.6	5.7	7.1
71. Prepare statistical reports.	54.3	30.9	11.6	3.2	1.1	14.3	23.8	4.8	57.1			19.0	38.1	42.9	57.5	15.0	10.0	17.5
72. Follow established procedure in filing incident reports.	45.5	31.3	22.2		1.0	17.3	9.6	1.9	71.2		3.8	25.0	19.2	51.9	78.0	12.0	2.0	8.0

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
73. Process loans of X-ray films.	34.4	30.1	44.6	3.2	1.1	2.8	5.6	1.7	65.0	3.3	5.0	8.3	16.7	66.7	81.7	10.0	5.0	3.3
74. Open sterile packages and packs.	7.2	19.6	35.6	3.1	7.2	10.2	1.7	7.8	85.6		2.2	2.2	23.3	72.2	82.2	8.9	5.6	3.3
75. Prepare injections, using measured or sterilized dose.	25.0	20.0	54.0	2.0	1.0	7.1	2.9	7.7	87.2	2.6			23.1	74.4	65.8	14.5	7.9	11.8
76. Accumulate and process data for doctor's interpretation.	30.8	28.6	35.2	3.3	2.2	3.3		8.2	88.5			4.9	29.5	65.6	67.8	13.6	8.5	10.2
77. Apply air to keep cavity preparation dry.	27.0	17.0	52.0	1.0	1.0	5.1		1.4	88.6		4.3	10.0	27.1	58.6	77.5	14.1	4.2	4.2
78. Evaluate adequacy of work space.	37.6	21.8	62.9	2.0	3.0	2.2	4.4	86.4	1.7	5.4		7.1	16.1	71.4	73.6	18.9	7.5	
79. Select proper accessories for radiographic techniques.	32.7	8.9	31.2	5.0	8.9	28.3	5.0	90.1	1.4	1.5	2.9	2.9	27.9	64.7	69.1	17.6	7.4	5.9

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
80. Know and apply basic first aid techniques, including cardiac resuscitation.	10.9	25.7	50.5	3.0	9.9	46.0	6.9	1.1	44.8	1.1	2.2		18.9	77.8	57.5	21.8	9.2	11.5
81. Set up and assist with surgical procedures.	10.9	6.9	65.3	4.0	12.9	2.2	1.1	17.2	78.5	3.2			10.8	86.0	61.3	17.2	11.8	9.7
82. Take and process X-rays.	5.0	12.9	60.4	1.0	20.8			3.1	95.8		1.0		5.2	93.8	64.6	15.6	5.2	14.6
83. Practice patient and operator safety measures and radiation.	7.9	12.9	64.4		14.9	2.1		3.2	94.7	5.3		2.1	5.3	87.4	62.4	18.3	6.5	12.9
84. Deliver and receive instruments at chairside.	3.0	18.8	76.2		2.0			1.0	99.0		2.0	1.0	28.6	68.4	75.5	15.3	7.1	2.0
85. Adjust voltage, amperage, and timer of X-ray machine.	22.8	19.8	46.5		10.9	9.2		1.3	89.5				18.4	81.6	70.7	12.0	8.0	9.3
86. Assist with amalgam restoration.	13.9	10.9	74.3		1.0	2.3		4.6	93.1				16.1	83.9	79.3	11.5	8.0	1.1
87. Prepare dental materials for placement.	5.9	5.9	85.1		3.0	4.2	4.2	3.2	88.4			4.2	18.9	76.8	75.8	13.7	7.4	3.2
88. Prepare setup for prophylaxis (cleaning).	13.9	7.9	43.6	3.0	31.7	8.0	1.1	1.1	89.7		5.7	3.4	18.4	72.4	60.9	10.3	4.6	24.1
89. Triturate amalgam-alloy.	20.0	11.0	66.0		3.0	2.5	9.9	3.7	84.0	1.2		3.7	25.9	69.1	78.2	9.0	11.5	1.3
90. Prepare silicate for restoration.	40.6	5.0	50.5	3.0	1.0	14.8		1.6	83.6	3.3		3.3	16.7	76.7	73.3	11.7	13.3	1.7

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
91. Prepare zinc phosphate cement for protective base.	32.6	9.5	51.6	3.2	3.2	6.1		12.1	81.8	3.0			24.2	72.7	77.3	13.6	4.5	4.5
92. Prepare setup for fluoride treatment.	10.9	2.0	55.4	1.0	30.7	4.4		6.7	88.9		4.4		32.2	63.3	55.6	18.9	8.9	16.7
93. Prepare alginate for impression by dentist.	9.9	3.0	83.2	2.0	2.0			12.1	87.9				26.4	73.6	73.6	14.3	11.0	1.1
94. Fill alginate tray.	19.2	14.1	62.6		4.0			14.3	85.7	5.2	2.6	1.5	31.2	58.4	67.5	18.2	9.1	5.2
95. Prepare setup for endontics (root canal therapy).	16.5	6.2	75.3	1.0	1.0	3.6	3.6	9.6	83.1	2.4	9.6	2.4	32.5	53.0	67.5	19.3	12.0	1.2
96. Prepare setup for prosthetics.	32.7	7.1	54.1	4.1	2.0	4.6	12.3	6.2	76.9		6.1	2.6	30.3	62.1	76.9	12.3	4.6	6.2
97. Load carrier and place amalgam in cavity preparation.	36.1	10.3	46.4		7.2		5.0	5.0	90.0		3.3		26.7	70.0	61.7	20.0	13.3	5.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
98. Prepare compound for impression by dentist.	38.6	7.9	44.9	3.1	5.1	24.6	1.6	11.5	63.9		3.2	3.2	17.7	75.8	56.6	27.4	9.7	6.5
99. Prepare setup for peridontal treatments.	29.3	7.1	66.3	1.0	5.0	3.7	6.2	8.3	81.5		2.5		23.5	74.1	64.2	18.5	16.0	1.2
100. Prepare tray setup for orthodontic treatments.	19.8	8.9	37.9	3.2	4.2	8.0	2.0	11.2	88.0	8.0			10.0	82.0	58.3	25.0	12.5	4.2
101. Prepare non-carpule hypodermic syringe for injection of medications.	35.9	10.9	27.4		6.3	4.9		1.6	87.8			4.9	12.2	82.9	48.8	29.3	14.6	7.3
102. Place matrix for amalgam restoration.	55.4	12.0	34.7		1.1			9.1	92.9				16.7	83.3	50.0	33.3	7.1	9.5
103. Heat or prepare gutta percha for temporary stopping.	62.8	9.6	22.3	1.1	4.3	23.1		10.3	66.7		13.9		19.4	66.7	47.2	30.6	16.7	5.6
104. Condense amalgam restorations.	47.4	16.8	29.3		3.3	11.4		7.1	79.5	4.9			19.5	75.6	41.5	26.8	14.6	17.1
105. Receive and preserve biopsy specimens.	56.8	9.5	48.9	3.3	1.1	43.5	4.8	7.3	48.4	3.6		3.6	19.6	73.2	55.9	23.7	13.6	6.8
106. Pour final impressions to produce master cast.	49.5	5.3	49.5	13.9	7.9	2.5		2.0	86.2	2.5			23.7	73.7	47.5	23.7	15.0	13.7
107. Pour, trim, and articulate cast.	20.8	6.9	44.4	19.2		2.8		8.6	88.9	2.8			20.8	76.4	48.6	22.2	18.1	11.1
108. Fabricate impression trays from preliminary impressions.	34.7	12.2	49.5	11.2		11.5	3.3	9.8	73.8	3.3			34.4	62.3	59.0	21.3	8.2	9.8

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
109. Pour casts of orthodontic deformities.	56.8	2.1	28.4	12.6		20.9		7.0	72.1	4.7	4.7		17.3	72.1	48.8	32.6	14.0	4.7
110. Fabricate trial baseplates and occlusal rims for complete dentures.	34.7	6.9	24.8	24.8	8.9	9.1	6.1	15.2	69.7	3.0			23.2	69.7	43.1	23.1	15.4	18.5
111. Make removable partial denture prosthesis for occlusal adjustments.	43.8	9.4	25.0	20.8	1.0	14.9	6.4	2.1	76.6	3.9	3.9		25.9	76.5	36.0	36.0	12.0	16.0
112. Fabricate individual surgical trays for immediate dentures.	45.5	3.0	21.2	29.3	1.0	16.0	8.0	2.0	74.0	3.5	3.5		15.8	77.2	31.6	28.1	14.0	26.3
113. Complete simple denture repairs.	45.5	8.9	21.8	23.8		9.3	13.0	18.5	59.3	3.4			15.7	70.7	36.8	24.6	17.5	21.1
114. Fabricate temporary, removable bite raisers.	43.6	6.9	22.8	25.7	1.0	12.0	6.0	12.0	70.0	3.6			27.3	73.2	33.9	23.2	17.9	25.0
115. Solder component parts of removable partial denture.	50.5	2.0	14.1	33.3		20.0	4.4	11.1	64.4	13.5	3.8	1.9	18.6	63.5	18.8	25.0	22.9	33.3

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
116. Replace tube teeth or facings.	58.4	3.0	10.9	26.7	1.0		24.4	9.8	9.8	56.1		8.9			24.4	66.7		37.8	28.3	13.3	31.1
117. Ditch the die.	42.3	7.2	19.6	29.9	1.0		8.2	2.0	20.4	69.4		4.0	4.0		12.0	80.0		37.7	27.3	13.2	20.8
118. Recognize and identify various types of dental instruments and equipment.	22.8	5.9	57.4	9.9	4.0		5.1	5.1	88.6	1.3		2.4	2.4	1.2	13.3	80.7		69.9	40.4	9.6	7.2
119. Evaluate dental radiographs for diagnostic quality.	55.2	8.3	21.9	3.1	11.5		9.5		2.4	88.1					19.0	81.0		59.5	22.4	11.9	4.8
120. Interpret the dental prescription.	62.4	7.5	8.6	17.2	4.3		5.3	2.6	5.3	86.8		5.3			10.5	84.2		26.3	7.4	10.5	31.6
121. Check records (charts) for deficiencies.	49.5	13.4	32.0	3.1	2.1		8.0	6.0	2.0	84.0		4.0		6.0	20.0	70.0		64.0	20.0	6.0	10.0
122. Type information onto various forms.	33.3	34.3	29.3		3.0		7.2	4.3	2.9	85.5		2.9	11.5	1.4	18.8	65.2		76.5	31.6	1.5	14.7
123. Maintain daily production record.	41.6	23.8	29.7	4.0	1.0		5.0	10.0	10.0	75.0		1.7	10.2		13.6	74.6		63.8	23.8	1.7	12.1
124. Construct palatal relief.	48.4	1.1	25.3	23.2	2.1		17.3	9.6	17.3	55.8		3.8		3.8	17.3	75.0		32.7	13.3	11.5	15.4
125. Solder contact on crown.	48.5	2.0	20.2	29.3			21.6	5.9	7.8	64.7		3.6		3.6	10.7	82.1		27.3	28.3	14.5	30.9
126. Solder bridge.	47.5		17.2	35.4			16.3	12.2	18.4	53.1		3.7		3.7	14.8	77.8		26.4	17.8	17.0	28.3

Response Key	Performance.....	1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
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	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
127. Pickle casting.	46.5	1.0	23.2	29.3		27.5		7.8	64.7	3.6	9.1		29.1	58.2	55.6	18.5	7.4	18.5
128. Grind and polish crown.	47.5	6.1	19.2	27.3		10.2	10.2	16.3	63.3	9.4			22.6	67.9	38.5	26.9	9.6	25.0
129. Wax-up and flask process acrylic facing, crown, or bridge.	56.6	5.1	10.1	28.3		25.6	7.0	27.9	39.5	10.9	4.3	4.3	6.5	73.9	24.4	24.4	8.9	42.2
130. Reduce sharp edges of fractured tooth.	71.9	11.5	6.3	8.3	2.1	44.8		20.7	34.5	6.7	10.0	13.3	30.0	40.0	23.3	26.7	3.3	46.7
131. Repair complete or partial denture, e.g., replace one or more teeth.	56.4	3.0	10.9	29.7		11.4	25.0	25.0	38.6	4.2		4.2	37.1	64.6	36.2	23.4	12.8	21.3
132. Bend wire for clasp.	51.5	3.0	8.1	36.4	1.0	31.3	4.2	22.9	41.7	3.9		17.6	15.7	62.7	35.3	29.4	5.9	23.5
133. Examine brushing effectiveness; indicate deficient areas to patient.	34.3		27.3	8.1	30.3	7.4	1.5	1.5	89.7	2.9		1.4	10.1	85.5	40.3	20.9	10.4	28.4

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
134. Construct broken stress/precision attachment bridge.	60.9		2.2	37.0		38.9	13.9	8.3	38.9	5.1			20.5	74.4	10.3	28.2	10.3	51.3
135. Construct cleft palate splint or removable expansion appliance.	69.8	3.5		26.7		41.9		12.9	45.2	6.5			22.6	71.0	13.3	16.7	16.7	53.3
136. Tripod or mark master cast.	54.3		25.6	26.7	2.3	8.5	12.8	10.6	68.1		8.3	4.2	18.8	68.8	40.4	27.7	12.8	19.1
137. Exchange diamond (bur, mandrel, mounted, or stone) in dental handpiece.	17.4	9.8	64.1	3.3	5.4	2.5		3.8	93.7		5.1	3.8	34.2	57.0	70.9	17.7	3.8	7.6
138. Add teeth to complete or partial denture.	53.1	11.5	7.3	27.1	1.0	7.5	20.0	15.0	57.5		4.5	4.5	13.6	77.3	43.2	18.2	2.3	36.4
139. Fabricate artificial teeth for characterized denture.	54.3	8.7	9.8	26.1	1.1	5.1	7.7	7.7	79.5	4.7			16.3	79.1	23.8	28.6	2.4	45.2
140. Flask, pack, cure, and deflask partial or complete denture.	45.7	12.0	13.0	29.3		6.7	6.7	4.4	82.2		4.0	2.0	16.0	78.0	39.6	29.2	2.1	29.2
141. Perform emergency orthodontic repair.	62.8	8.1	16.3	12.8		5.9		20.6	73.5	2.9	2.9	8.8	20.6	64.7	42.4	27.3	9.1	21.2
142. Make temporary acrylic resin jacket crown.	67.4	7.4	10.5	14.7		20.0			80.0	5.9	8.8		20.6	64.7	41.2	8.8	8.8	41.2
143. Dehydrate refractory cast.	67.8	3.4		28.7		31.3	3.1	62.5	3.1	15.6			9.4	75.0	29.0	29.0	9.7	32.2
144. Select shade and mold for crown/bridge.	61.1	3.2	27.4	8.4		12.8	2.6	17.9	66.7	5.1			12.8	82.1	60.5	26.3	13.2	

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
145. Prepare cast for altered cast impression.	71.9	4.5	3.4	18.0	2.2	33.3	9.5	4.8	52.4	9.5	9.5		28.6	52.4	14.3	23.8	28.6	33.3
146. Design removable partial denture.	80.9	10.1	2.2	6.7		22.2	5.6	11.1	61.1	11.1			16.7	72.2	16.7	16.7	27.8	38.9
147. Clean or polish removable appliance.	43.2	4.2	20.0	28.4	4.2	13.2	17.0	9.4	60.4	3.6	10.7		33.9	51.8	46.4	17.9	8.9	26.8
148. Border mold, muscle trim custom tray.	74.2	11.8	4.3	9.7		16.7	29.2	8.3	45.8			12.0	24.0	64.0	20.0	20.0	4.0	56.0
149. Make individual surgical tray for immediate denture.	60.9		4.3	34.8		25.7	20.0	8.6	45.7	5.1	5.1		17.9	71.8	35.9	20.5	2.6	41.0
150. Prepare or apply characterized porcelain restoration.	67.7	2.2	3.2	26.9		13.3	10.0	16.7	60.0	5.9	5.9		11.8	76.5	20.6	23.5	17.6	38.2
151. Construct plastic dental splint.	45.2	2.2	19.4	24.7	8.6	28.6	8.2	6.1	57.1	4.1			32.7	63.3	35.4	14.6	25.0	25.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
152. Prepare die from cast.	58.9		4.2	35.8	1.1	10.3	12.8	7.7	69.2	4.8			4.8	90.5	38.1	14.3	7.1	40.5
153. Make habit control device.	63.2		6.3	30.5		27.5	17.5	22.5	32.5	5.1	5.1	5.1	15.4	69.2	47.4	15.8	7.9	28.9
154. Fabricate surgical template.	68.0	2.1	6.2	23.7		24.2	21.2	15.2	39.4	6.1			12.1	81.8	50.0	9.4	9.4	31.3
155. Polish and finish partial denture framework.	45.3		20.0	34.7		4.3	14.9	14.9	66.0	3.8	3.8	5.8	13.5	73.1	34.6	25.0	17.3	23.1
156. Bake and finish porcelain restoration.	57.4		3.2	39.4		15.0	15.0	7.5	62.5	4.7			11.6	83.7	18.6	30.2	7.0	44.2
157. Repair complete or partial denture (no teeth damage).	58.6		11.1	30.3		7.9	21.1	10.5	60.5	4.7		4.7	9.3	81.4	41.9	16.3	2.3	39.5
158. Pour refractory cast.	62.6	2.2	8.8	25.3	1.1	8.1	16.2	8.1	67.6	5.3			23.7	71.1	48.6	18.9	2.7	29.7
159. Operate audiovisual equipment, e.g., projector, recorder, etc.	57.7	5.2	26.8	8.2	2.1	16.3	4.7	23.3	55.8	4.5	4.5		34.1	56.8	68.2	20.5	2.3	9.1
160. Mount final cast to adjustable articulator.	51.6	4.2	16.8	27.4		9.3	20.9	27.9	41.9	4.3		2.1	6.4	87.2	40.4	25.5	1.4	27.7
161. Cast crown, bridge, or inlay in gold.	64.6			35.4		6.1	18.2	6.1	69.7	5.3			2.6	92.1	21.1	26.3	10.5	42.1
162. Make orthodontic space maintainer or retainer.	55.8	4.2	18.9	21.1		19.0	14.3	11.9	54.8	4.7	4.7	2.3	20.9	67.4	44.2	23.3	9.3	23.3

OCCUPATIONAL ANALYSIS: Dental Services

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Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienis
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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
163. Wax-up, shape, and contour removable appliance for try-in or final processing.	65.6			34.4		8.8	23.5	5.9	61.8	5.9			2.9	91.2	18.2	30.3	15.2	36.4
164. Remove plaster or stone cast from impression after setting.	44.9	6.1	26.5	21.4	1.0	3.8	7.5	13.2	75.5	3.5	10.5	3.5	14.0	68.4	61.4	10.5	1.8	26.3
165. Perform selective grinding of denture.	60.9	2.2	9.8	27.2		15.8	7.9	34.2	42.1	5.1		10.3	23.1	61.5	38.5	12.8	7.7	41.0
166. Process acrylic facing on bridge.	66.0	1.1	2.1	30.9		27.3	9.1	3.0	60.6	5.6	5.6	5.6	5.6	77.8	27.0	27.0	2.7	43.2
167. Remove teeth from metal framework.	65.6	2.2		32.2		34.3	14.3		51.4	11.4	5.7	8.6	11.4	62.9	28.6	31.4	2.9	37.1
168. Sandblast partial denture framework or chrome castings.	65.3			34.7		17.6	14.7	11.8	55.9	10.5	5.3		13.2	71.1	34.2	23.7	5.3	36.8
169. Transfer design from master cast to refractory cast.	60.0		2.1	37.9		13.2	21.1	15.8	47.4	7.1	4.8		9.5	78.6	23.8	19.0	9.5	47.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
170. Disassemble bridge.	69.4		3.5	27.1		30.0	23.3	10.0	36.7	13.3	6.7		10.0	70.0	13.3	30.0	13.3	43.3
171. Reset teeth for complete or partial denture.	57.8		6.7	35.6		14.3	23.8	31.0	31.0	4.9		9.8	9.8	75.6	34.1	24.4	9.8	31.7
172. Sandblast gold appliance.	66.3			33.7		14.3	11.3	20.0	51.4	5.9		5.9	8.8	79.4	29.1	29.4	5.9	35.3
173. Make soldering index.	62.8	2.1		35.1		6.1	15.2	24.2	54.5	5.4			10.8	83.8	24.3	24.3	2.7	48.6
174. Design and form post dam.	68.9	4.4	5.6	20.0	11.1	12.9	12.9	32.3	41.9	6.7			20.0	73.3	23.3	23.3	6.7	46.7
175. Set up artificial teeth on removable partial denture framework.	59.6		1.1	39.4		11.1	16.7	27.8	44.4	5.0			15.0	80.0	15.0	30.0	10.0	45.0
176. Inspect dental case or model for acceptance.	68.1	6.4	8.5	17.0		20.0	11.4	8.6	60.0	5.9			8.8	85.3	35.3	14.7	23.5	26.5
177. Perform soft tissue curettage.	62.2	11.2	10.3	2.0	14.3	20.0		28.6	51.4	5.7	5.7	5.7	28.6	54.3	31.4	8.6	8.6	51.4
178. Adjust partial framework.	79.5	10.2	3.4	6.8		15.8		21.1	63.2	10.5			5.3	84.2	10.5		42.1	47.4
179. Prepare necessary ingredients for dental casting.	60.0	3.2	1.1	35.8		11.1	13.9	13.9	61.1	5.0		2.5	12.5	80.0	30.0	12.5	7.5	50.0
180. Duplicate master cast.	54.7	2.1	7.4	35.8		15.7	11.9	31.0	40.5	4.3	4.3	6.5	6.5	78.3	34.8	19.6	8.7	37.0

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
181. Survey cast for partial denture design.	69.8	2.1	1.0	27.1		10.7	10.7	21.4	57.1	6.3		12.5		81.3	9.7	9.7	35.5	45.2
182. Adjust fixed bridge or splint.	70.5	5.3	17.9	5.3	1.1	6.7		13.3	80.0	6.7	3.3	16.7	16.7	56.7	50.0	16.7	16.7	16.7
183. Make or transfer coping.	70.8	9.4	1.0	18.8		23.1	7.7		69.2	6.7	6.7	3.3	6.7	76.7	13.3	10.0	6.7	70.0
184. Carve and restore anatomical landmarks on dental restoration.	76.8	2.1	2.1	18.9		13.0		13.0	73.9	7.7		7.7	3.8	80.8	15.4	26.9	11.5	46.2
185. Weld or solder orthodontic band.	74.5	4.3	8.5	12.8		23.1	7.7		69.2	7.7	7.7	3.8	7.7	73.1	34.6	23.1	7.7	34.6
186. Adjust wrought gold clasp and bar.	85.9	2.2	1.1	10.9		23.5	11.8		64.7	11.8	11.8	5.9		70.6	23.5	17.6	29.4	29.4
187. Fabricate orthodontic appliance, e.g., Hawley.	66.3		6.3	27.4		11.4	14.3	14.3	60.0	5.7	5.7	8.6	8.6	71.4	42.9	11.4	17.1	28.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
188. Finish and polish metallic framework.	63.4			36.6		11.8	14.7	23.5	50.0	5.3	5.3		18.4	71.1	18.9	18.9	21.6	40.5
189. Solder chrome cobalt casting.	60.2	3.2		36.6		16.7	13.9	25.0	44.4	5.0	5.0	5.0	12.5	72.5	15.4	28.3	2.6	53.8
190. Arrange artificial teeth in balanced occlusion for complete denture.	62.4			34.4	3.2	5.7	22.9	11.4	60.0	5.1			17.9	76.9	10.5	18.4	15.8	55.3
191. Put post dam on master cast.	66.0	2.1		28.7	3.2	10.3	27.6	3.4	58.6	6.1			3.0	90.9	6.3	18.8	9.4	65.6
192. Remount complete denture for occlusal adjustment.	62.8	2.1		31.9	3.2	6.3	31.3	3.1	59.4	5.6			2.8	91.7	17.1	20.0	5.7	57.1
193. Bead and box final impression.	56.0	1.0	14.0	26.0	3.0	9.5	26.2	11.9	52.4	4.3	10.9	4.3	6.5	73.9	41.3	17.4	6.5	34.8
194. Select teeth for removable prosthetic appliance.	67.8	4.4	5.6	18.9	3.3	12.1	18.2	3.0	66.7	6.1		6.1	18.2	69.7	9.1	27.3	18.2	45.5
195. Finish and polish gold alloy inlays, crowns, or fixed partial dentures.	62.8		3.2	28.7	5.3	5.6	8.3	13.9	72.2	5.0			17.5	77.5	32.5	17.5	2.5	47.5
196. Design and position palatal reliefs.	68.9	6.7		24.4		16.7	23.3	3.3	56.7	6.7		10.0	10.0	73.3	6.9	27.6	6.9	58.6
197. Cast gold crown, inlay, or pontic backing.	60.4		1.1	35.2	3.3	5.9	14.7	8.8	70.6	5.3			2.6	92.1	21.6	21.6	13.5	43.2
198. Perform root planning procedures.	64.3	6.1	5.1	3.1	21.4	20.6	2.9	8.8	67.6	5.9			2.9	91.2	14.7	8.8	11.8	64.7

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	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
199. Pickle and heat-treat gold inlays, crowns, or pontics.	50.0	2.0	12.2	34.7	1.0	10.4	30.2	18.8	54.2	3.8		3.8	28.8	63.5	39.2	17.6	5.9	37.3
200. Fabricate immediate complete or removable partial dentures.	64.2	6.3	1.1	28.4		11.4	15.2	20.0	48.6	5.1			17.9	76.9	10.5	10.5	7.9	71.1
201. Wax-up and carve inlays, crowns, or pontics for fixed partial bridges.	67.4			32.6		9.7	20.0	6.5	67.7	5.7			5.7	88.6	11.8	20.6	8.8	58.8
202. Apply foil or tinfoil substitute to complete/ partial denture.	63.2	2.1		33.7	1.1	11.1	22.2	19.4	47.2	10.0			15.0	75.0	30.8	15.4	7.7	46.2
203. Complete complex denture repairs.	63.2	2.1	5.3	26.3	3.2	11.4	16.1	20.0	48.6	5.0		5.0	12.5	77.5	23.1	7.7	2.6	66.7
204. Bead and box complete or partial denture impressions.	62.6	2.2	7.7	26.4	1.1	21.2	20.0	6.1	57.6	5.3	13.2	5.3	10.5	65.8	35.1	13.5	8.1	43.2
205. Reline dentures by flask method.	55.8	2.1	9.5	31.6	1.1	7.0	16.7	25.6	37.2	4.3		4.3	19.1	72.3	34.8	15.2	4.3	45.7

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
206. Stabilize baseplates.	64.9	2.1	3.2	28.7	1.1	6.1	21.2	18.2	54.5	5.4		5.4	21.6	67.6	27.8	19.4	8.3	44.4
207. Solder units of fixed partial dentures.	62.8	2.1		34.0	1.1	11.1	13.9	16.7	58.3	5.0			7.5	87.5	10.5	18.4	10.5	60.5
208. Polish or glaze porcelain facing, teeth, o pontics.	59.6		3.2	37.2		10.5	15.8	7.9	65.8	4.8			19.0	76.2	22.5	17.5	15.0	45.0
209. Survey and design removable partial dentures.	76.1	5.7	2.3	14.8	1.1	8.7	8.7	17.4	65.2	8.7			4.3	87.0	9.1	40.9	4.5	45.5
210. Block out and relieve master casts.	59.6	2.1	2.1	35.1	1.1	11.1	22.2	19.4	47.2	5.0	5.0		7.5	82.5	15.8	26.3	10.5	47.4
211. Fabricate broken stress or precision attachment bridges.	56.4	1.1	7.4	34.0	1.1	15.4	28.2	7.7	48.7	4.7	4.7		11.6	79.1	16.7	19.0	14.3	50.0
212. Fabricate baked porcelain-to-gold restorations.	57.4	4.3	2.1	36.2		10.0	12.5	15.0	62.5	4.5			15.9	79.5	9.5	16.7	26.2	47.6
213. Fabricate orthodontic space maintainers or retainers.	67.8	2.3	5.7	24.1		12.9	6.5	12.9	67.7	6.5	6.5		6.5	80.6	36.7	16.7	6.7	40.0
214. Characterize and apply stains to porcelain facings, crowns, and pontics.	61.5	3.3	1.1	33.0	1.1	5.7	14.3	14.3	65.7	5.1			7.7	87.2	10.8	18.9	16.2	54.1
215. Fabricate ceramic porcelain jackets.	60.0	1.1	1.1	36.8	1.1	10.5	21.1	15.8	52.6	4.8			9.5	85.7	10.0	17.5	22.5	50.0
216. Fabricate mouth guards.	55.1	3.1	5.1	25.5	11.2	11.1	31.1	13.3	44.4	4.1	4.1		14.3	77.6	31.9	8.5	6.4	53.2

Response Key	Performance.....	1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
217. Fabricate electroformed dies.	73.6	3.3	2.2	20.9		26.9	3.8	3.8	65.4	7.7	7.7		30.8	53.8	16.0		32.0	52.0
218. Pour orthodontic casts.	67.7	3.1	13.5	14.6	1.0	17.1	5.7	8.6	68.6	5.7	5.7	2.9	5.7	80.0	55.9	17.6	2.9	23.5
219. Fabricate splints for immobilization of fractures of maxilla and mandible.	75.6	5.6	1.1	16.7	1.1	30.8	7.7	7.7	53.8	7.7	7.7		7.7	76.9	8.0	16.0	8.0	68.0
220. Fabricate amalgam dies.	73.6	2.2	3.3	20.9		24.0	12.0	8.0	56.0	8.0	8.0	4.0	8.0	72.0	16.7	25.0	12.5	45.8
221. Fabricate cast metal bases for complete dentures.	76.1			23.9		20.0	24.0	12.0	44.0	8.0		4.0	12.0	76.0	8.3	16.7	8.3	66.7
222. Estimate amounts of precious metals or chrome-cobalt alloys required for casting.	62.8	1.1	6.4	28.7	1.1	8.8	17.6	5.9	64.7	5.6	2.8		16.7	75.0	16.7	8.3	25.0	47.2
223. Survey and design study casts.	74.4	5.6		18.9	1.1	12.0	8.0	4.0	76.0	8.0			4.0	88.0	8.3		20.8	70.8

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
224. Characterize denture base materials.	64.8	2.2	2.2	29.7	1.1	6.9	20.7	10.3	62.1	6.1		6.1	9.1	78.8	18.2	3.0	24.2	54.5
225. Give physiotherapy instruction for temporomandibular joint difficulty.	76.9	8.8	5.5	3.3	5.5	8.7	4.3	13.0	73.9	8.7			4.3	87.0	27.3	13.6	9.1	50.0
226. Perform bedside oral prophylaxis.	73.6	3.3	2.2	3.3	17.6	32.1		10.7	57.1	14.3	7.1		3.6	75.0	20.0	12.0	8.0	60.0
227. Take and prepare oral cytologic smears.	87.2	3.5	3.5	2.3	3.5	26.7		13.3	60.0	13.3			6.7	80.0	14.3	21.4	7.1	57.1
228. Remove plaque and stain, and polish teeth.	37.2	3.2	8.5	3.2	47.9	6.3	6.3	3.2	84.1	3.2			4.8	92.1	14.8	3.3	9.8	72.1
229. Clean interproximal surfaces of teeth with dental floss or tape.	34.4	3.2	22.6	3.2	36.6	7.7	9.2	3.1	80.0	3.1	3.1	3.1	4.6	86.2	36.5	4.8	6.3	52.4
230. Use ultrasonic devices to remove calculus.	43.6	2.1	5.3	3.2	45.7	3.3	6.7	8.3	81.7	3.3			1.7	95.0	18.6		10.2	71.2
231. Apply disclosing solutions to the teeth to identify bacterial plaque.	33.0	2.1	25.8	4.1	35.1	11.6	5.8	10.1	72.5	2.9	2.9		15.9	78.3	44.1	5.9	5.9	44.1
232. Polish finished restorations.	57.9	4.2	8.4	7.4	22.1	20.5		9.1	70.5	4.5	11.4		20.5	63.6	25.6	7.0	16.3	51.2
233. Apply fluoride to teeth.	31.5		19.6	6.5	42.4	10.6	7.6	3.0	78.8	3.0			22.7	74.2	23.1	3.1	9.2	64.6
234. Perform peridontal charting.	39.1	2.2	31.5	7.6	19.6	9.8	4.9	11.5	73.8	5.2			19.0	75.9	45.0	8.3	11.7	35.0

Response Key

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
235. Desensitize hypersensitive teeth.	64.8	5.5	5.5	4.4	19.8	39.4	6.1	9.1	45.5	6.3	6.3		34.4	53.1	25.0	6.3	25.0	43.8
236. Apply topical medications.	45.7	6.5	31.5	3.3	13.0	8.0	6.0	8.0	78.0	4.0		2.0	36.0	58.0	52.0	8.0	14.0	26.0
237. Remove and insert temporary fillings.	69.8	5.8	19.8	1.2	3.5	14.3		7.1	78.6	7.1		3.6	35.7	53.6	53.6	14.3	10.7	21.4
238. Remove or prepare surgical peridontal packs.	57.0	4.3	28.0	4.3	6.5	12.2	36.6	9.8	41.5	4.9	4.9	12.2	14.6	63.4	61.0	19.5	12.2	7.3
239. Locate and assess the amount of stains and deposits.	45.8	2.1	2.1	4.2	45.8	7.1		5.4	87.5	3.6		3.6	10.7	82.1	23.6		10.9	65.5
240. Recognize conditions indicated in history that require alteration procedure.	52.0	7.1	24.5	2.0	14.3	8.0		2.0	90.0	4.0			6.0	90.0	44.0	4.0	10.0	42.0
241. Identify abnormalities in soft tissues of the mouth.	51.0	9.4	13.5	4.2	21.9	4.0	4.0	10.0	82.0	4.0			14.0	82.0	28.0	6.0	12.0	54.0

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
242. Identify extra-oral habits affecting occlusion.	63.2	12.6	6.3	2.1	15.8		11.1		11.1	77.8		5.6		5.6	19.4	69.4		22.2	5.6	2.8	69.4
243. Identify deviate swallowing patterns.	66.3	11.6	7.4		14.7		21.1		7.9	71.1		5.3		5.3	10.5	78.9		18.4	13.2	2.6	65.8
244. Handle and store sterilized material to prevent contamination.	25.7	1.0	59.4		13.9		8.7			91.2		2.5		3.7	11.2	82.5		72.2	10.1	6.3	11.4
245. Load and unload film units.	36.6	6.5	49.5		7.5		10.9		3.1	85.9		3.1			18.8	78.1		68.3	12.7	4.8	12.7
246. Take X-rays (dental, abdominal, spinal, chest, etc.)	19.2	3.0	48.5		29.3		4.7		2.4	92.9		2.4			9.4	88.2		45.2	17.9	11.9	23.8
247. Recognize expected reactions to treatment.	26.7	13.9	37.6		21.8		6.4		3.8	89.7		2.6	2.6	2.6	10.3	82.1		42.9	13.0	13.0	29.9
248. Minimize hazards throughout the health care facility.	33.0	16.5	26.8	2.1	21.6		7.0	2.8	2.8	87.3		2.8		1.4	8.5	87.3		50.0	8.6	15.7	24.3
249. Have an understanding of fire prevention and control.	29.9	15.5	37.1	2.1	15.5		10.8		1.4	87.8		2.7		1.4	13.7	82.2		62.5	9.7	12.5	15.3
250. Give instructions to patient regarding medication.	41.5	11.7	27.7	3.2	16.0		11.7			88.3		3.3	3.3		13.3	80.0		54.2	11.9	25.4	8.5
251. Direct patient to project completion by praise and encouragement.	18.0	5.0	45.0	5.0	27.0		5.9	2.4	2.4	88.2		3.5	2.4	5.9	16.5	71.8		61.2	11.8	14.1	12.9
252. Teach patient to perform activity by instructing and demonstrating.	15.0	4.0	42.0	2.0	37.0		5.6		7.9	85.4		3.4			15.7	80.9		52.8	6.7	18.0	22.5

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
253. Remove impressions from patient's mouth.	57.3	13.5	19.8	2.1	7.3	9.1	9.1	4.5	77.3	4.5	18.2	6.8	11.4	59.1	56.8	6.8	9.1	27.3
254. Take impressions for study models.	64.2	9.5	10.5	2.1	13.7	18.9	2.7	10.8	67.6	5.4			32.4	62.2	37.8	18.9	13.5	29.7
255. Place, cut, or remove sutures postoperatively.	57.9	8.4	25.3	1.1	7.4	17.8	4.4	35.6	42.2	4.7	14.0	14.0	7.0	60.5	48.8	23.3	11.6	16.3
256. Place or remove temporary cement.	56.8	7.4	28.4	1.1	6.3	11.4	6.8	25.0	56.8	4.5	4.5	4.5	29.5	56.8	65.9	18.2	6.8	9.1
257. Place or remove peridontal surgical pack.	56.0	5.5	17.6	1.1	19.8	27.9	11.6	7.0	53.5	4.7	9.3	2.3	34.9	48.8	41.5	14.6	17.1	26.8
258. Remove medication (dry socket).	46.2	9.7	32.3	1.1	10.8	25.0	13.5	11.5	50.0		4.0	4.0	32.0	60.0	46.0	16.0	14.0	24.0
259. Select appropriate home care technique for each patient.	33.3	14.1	16.2	4.0	32.3		1.5	7.6	90.9				10.6	89.4	25.8	3.0	15.2	56.1

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
260. Evaluate dietary habits and instruct patient on proper nutrition.	48.5	10.3	11.3	2.1	27.8	15.4		7.7	76.9			1.9	25.0	73.1	17.3	11.5	7.7	63.5
261. Abstract simple data from patient's chart.	39.8	11.2	32.7	2.0	14.3	7.8		4.7	87.5	3.1		7.8	26.6	62.5	51.6	21.9	9.4	17.2
262. Assist with oral surgery procedures.	10.0	4.0	77.0	1.0	8.0			17.8	82.2			4.5	6.8	88.6	69.3	15.9	10.2	4.5
263. Aspirate during oral surgery.	11.0	1.0	81.0	2.0	5.0			20.0	80.0			3.4	17.0	79.5	68.2	18.2	11.4	2.3
264. Assist with the administration of local anesthetics.	24.8	5.0	60.4	3.0	6.9			10.1	89.9		2.5	3.8	8.0	84.8	66.7	15.4	9.0	9.0
265. Evacuate oral cavity during restorative procedure.	20.2	15.2	57.6	2.0	5.1			8.6	91.4			1.2	8.6	90.1	66.7	12.3	4.9	16.0
266. Apply water to tooth during cavity preparation.	30.7	9.9	55.4		4.0	4.2		7.0	88.7		4.1	1.4	11.0	83.6	80.3	5.6	5.6	8.5
267. Insert or remove cotton rolls.	31.6	4.2	57.9		6.3	7.5	4.5	6.0	82.1	2.9	10.1	4.3	17.4	65.2	76.6	14.1	7.8	1.6
268. Assist with rubber dam application and removal.	33.3	2.1	57.3	1.0	6.3		7.8	10.9	81.3		3.0		22.7	74.2	62.5	31.9	10.9	4.7
269. Stabilize patient's mandible during operations.	30.9	3.1	57.7	1.0	7.2			4.6	95.4		3.0		17.9	79.1	72.3	15.4	10.8	1.5
270. Dispense medications when ordered by health professional.	33.7	6.3	47.4	2.1	10.5	9.8		4.9	85.2				12.7	87.3	60.7	18.0	14.8	6.6

OCCUPATIONAL ANALYSIS: Dental Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
271. Hold impression in mouth after dentist places impression tray.	47.4	8.4	38.9	2.1	3.2	5.9	2.0	19.6	72.5	3.9	7.8	5.9	23.5	58.8	51.0	19.6	11.8	17.6
272. Deliver or remove equipment and supplies from contaminated room.	36.4	9.1	47.5	3.0	4.0	3.0	1.5	4.5	90.9	3.0	9.1		12.1	75.8	75.8	7.6	4.5	12.1
273. Dispose of contaminated materials and equipment.	24.7	8.2	59.8		7.2	2.7		12.3	84.9		11.0	1.4	15.1	72.6	79.5	8.2	4.1	8.2
274. Clean patient unit furniture.	20.2	6.1	65.7		8.1	4.8		10.8	84.3	2.4	7.2	2.4	16.9	71.1	83.1	6.0	6.0	4.8
275. Polish removable partial denture base.	65.9	4.4	8.8	14.3	6.6	8.3	16.7	19.4	55.6	5.6	5.6	2.8	13.9	72.2	61.1	16.7	2.8	19.4
276. Clean and maintain service area and equipment, within area of responsibility.	22.1	7.4	60.0	2.1	8.4	5.5	2.7	6.8	84.9		5.5		31.5	63.0	80.3	10.5	3.9	5.3
277. Order or inventory and store equipment and supplies.	16.2	12.1	56.6		15.2	4.7	4.7	10.5	79.1	2.3		1.2	26.7	69.8	70.9	11.6	7.0	10.5

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
278. Determine if equipment needs repair.	43.0	9.7	28.0	1.1	18.3	17.5	3.5	10.5	68.4	3.4	3.4	1.7	22.4	69.0	57.9	10.5	12.3	19.3
279. Schedule or perform maintenance on equipment.	50.5	17.2	29.0		3.2	28.8	3.8	5.8	61.5	5.7			22.6	71.7	65.4	19.2	1.9	13.5
280. Clean, sharpen, and maintain instruments or equipment as required.	14.1	3.3	69.6		13.0		2.5	17.7	79.7		2.5		24.1	73.4	67.5	14.3	14.3	3.9
281. Reline dentures by articulator method.	41.6	7.9	32.6	16.9	1.1	3.9	5.9	15.7	74.5				19.6	80.4	53.1	10.2	10.2	26.5
282. Fit indirect orthodontic band.	57.0	12.8	26.7	3.5		8.1	5.4	2.7	83.8	2.7			21.6	75.7	57.1	11.4	14.3	17.1
283. Duplicate complete denture.	44.3	10.2	30.7	14.8		4.1	10.2	8.2	77.6	4.1			24.5	71.4	46.9	10.2	6.1	36.7
284. Make temporary bridge or splint.	44.0	11.0	30.8	12.1	2.2	7.8	13.7	9.8	68.6	3.9		2.0	17.6	76.5	58.8	3.9	5.9	31.4
285. Store and inventory precious metals.	36.0	9.0	44.9	10.1		11.7	8.3	1.7	78.3		6.7		30.0	63.3	76.7	5.0	1.7	16.7
286. Clean and maintain laboratory instruments.	18.1	2.1	61.7	18.1		2.5	12.5	18.8	66.2	2.5	6.3		23.7	67.5	82.5	6.3	7.5	3.7
287. Maintain dental laboratory equipment.	31.9	1.1	46.2	18.7	2.2	13.4	4.5	16.4	65.7	3.0	9.0	1.5	19.4	67.2	83.1	7.7	3.1	6.2
288. Fabricate face masks for before-and-after presentations of special cases.	64.8	6.8	14.8	11.4	2.3	6.5	12.9	12.9	67.7	6.5			19.4	74.2	40.0	30.0	6.7	23.3

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
289. Fabricate acrylic resin jacket crowns and pontics.	53.8	2.2	16.5	26.4	1.1	12.2	9.8	22.0	56.1	4.5	6.8		25.0	63.6	36.4	20.5	6.8	36.4
290. Fabricate stone dies.	36.2	1.1	27.7	30.9	4.3		7.0	12.3	80.7				13.3	86.7	49.1	24.6	1.8	49.1
291. Grind in porcelain or acrylic facings and pontics.	40.7	3.3	24.2	26.4	5.5		9.8	5.9	84.3				16.7	83.3	41.2	27.4	2.0	41.2
292. Sprue, invest, and burn out gold alloy inlays, crowns, or pontics.	40.0	2.2	23.3	31.1	3.3		9.6	9.6	80.8			1.9	18.5	79.6	37.3	26.4	2.0	37.3
293. Test occlusion and fit of inlays, crowns, or fixed partial dentures.	66.3	6.7	13.5	12.4	1.1	6.7	10.0	16.7	66.7	6.3			6.3	87.5	40.6	18.8	6.3	40.6
294. Sprue and invest wax-up for casting removable partial dentures.	37.9	1.1	24.1	29.9	6.0	4.0	16.0	14.0	66.0		3.7		16.7	79.6	46.2	13.5	5.8	46.2
295. Trim and wax-dip refractory casts of removable partial dentures.	40.2	2.3	25.3	28.7	3.4	3.7	18.5	14.8	63.0		7.5		17.0	75.5	52.9	15.7	7.8	52.9

		1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
296.	Burn out wax prior to casting.	43.5	6.5	13.0	32.6	4.3	6.4	10.6	17.0	66.0			3.9	23.5	72.5	45.1	19.6	2.0	33.3
297.	Cast metal framework for removable partial dentures.	51.1	1.1	13.0	32.6	2.2	7.5	20.0	12.5	60.0		4.5		6.8	88.6	38.6	18.2	2.3	40.9
298.	Grind in tube teeth or facings.	49.5	6.6	16.5	22.0	5.5	4.5	13.6	15.9	63.6		4.2		22.9	72.9	42.6	14.9	6.4	34.0
299.	Make trial baseplates and occlusal rims for removable partial dentures.	66.7	1.1	10.8	20.4	1.1	8.6	8.6	8.6	74.3	5.9	5.9		11.8	76.5	58.8	17.6	2.9	20.6
300.	Assemble and repair complete dentures.	59.1	1.1	12.9	26.9		5.4	21.6	16.2	56.8	4.9	4.9		22.0	68.3	34.1	17.1	9.8	39.0
301.	Repair metal parts of removable partial dentures.	67.4	1.1	1.1	30.4		14.3	17.9	17.9	50.0	6.3	12.5		3.1	78.1	18.8	21.9	3.1	56.3
302.	Give oral habit therapy.	67.4	6.5	12.0	4.3	9.8	18.8		9.4	71.9	6.3		6.3	9.4	78.1	37.5	6.3	21.9	34.4
303.	Eliminate wax from denture molds.	65.2		2.2	28.3	4.3	16.1	16.1	9.7	58.1	5.7		8.6	11.4	74.3	34.3	20.0	2.9	42.9
304.	Critically evaluate processing errors.	56.3	5.7	24.1	11.5	2.3	12.4		22.5	65.0	5.0	5.0	5.0	25.0	60.0	42.1	34.2	5.3	18.4
305.	Critically evaluate completed case.	61.4	5.7	18.2	13.6	1.1	11.1	2.8	13.9	72.9	5.6		11.1	22.2	61.1	37.1	37.1	5.7	20.0
306.	Wax-up and contour complete denture base for try-in or final processing.	64.8		1.1	33.0	1.1	16.1	16.1	9.7	58.1	5.7			11.4	82.9	20.0	28.6	2.9	48.6

OCCUPATIONAL ANALYSIS: Dental Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

	Competency Statement	Performance					Use Frequency				Importance					Training			
		1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
307.	Critically evaluate impressions and casts prior to fabrication of cast.	80.0	4.4	1.1	13.3	1.1	9.1		18.2	72.7	9.1			4.5	86.4	20.0	30.0	15.0	35.0
308.	Arrange artificial teeth in centric relation to complete dentures.	54.3		13.8	31.9		10.0	7.5	17.5	65.0	4.7			16.3	79.1	30.2	18.6	16.3	34.9
309.	Maintain unexposed radiographic film storage.	28.3	2.0	58.6	7.1	4.0	8.2	6.8	12.3	72.6	4.1	15.1	4.1	8.2	68.5	79.5	6.8	8.2	5.5
310.	Establish and maintain chain of anticepsis.	28.3	5.1	48.5	6.1	12.1	5.6	1.4	2.8	90.1	2.8		1.4	4.2	91.5	66.2	14.1	11.3	8.5
311.	Prepare instruments for sterilization (chemical, autoclaving, dry heat).	22.4	5.1	60.2	2.0	10.2	2.5		1.3	96.2		2.5		11.4	86.1	70.9	15.2	8.0	5.1
312.	Sterilize instruments by chemical, autoclaving, or dry heat procedures.	23.2	2.0	61.6	4.0	9.1	5.1	1.3	3.8	89.7	2.6			9.0	88.5	71.8	15.4	7.7	5.1
313.	Inspect all areas and rooms for proper housekeeping, temperature, and adequate supplies.	27.3	11.1	56.6	2.0	3.0	5.2	3.9	1.3	89.6	2.6	2.6		11.8	82.9	78.9	11.8	2.6	6.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
314. Check invoices against purchase orders.	26.3	26.3	40.4	6.1	1.0	2.7	8.2	19.2	69.9	2.7	2.7		21.9	72.6	72.6	12.3	8.2	6.8
315. Organize storage areas for equipment, supplies, drugs.	33.3	10.1	51.5	3.0	2.0	8.7	4.3	20.3	66.7	2.9	2.9		21.7	72.5	84.1	8.7	2.9	4.3
316. Schedule regular checks for radiation leakage.	56.8	9.5	22.1	6.3	5.3	34.9	18.6	7.0	39.5	4.7			14.0	81.4	56.1	17.1	9.8	17.1
317. Check radiation monitoring badges.	53.7	10.5	28.4	3.2	4.2	11.1	26.9	20.0	42.2	4.4	4.4	2.2	6.7	82.2	57.8	15.6	15.6	11.1
318. Apply paralleling (long cone) procedures for peri-apical radiographic survey.	44.2	3.2	36.8	5.3	10.5	7.1	3.6	1.8	87.5	3.6			10.7	85.7	52.8	20.8	7.5	18.9
319. Apply bisecting angle (short cone) procedures for peri-apical radiographic survey.	48.4	6.5	30.1	4.3	10.8	12.0	6.0	2.0	80.0	4.0	4.0		8.0	84.0	46.0	22.0	8.0	24.0
320. Develop and fix exposed radiographic film.	23.2	4.0	55.6		17.2	7.4		6.2	86.4	2.5			14.8	82.7	75.9	6.3	6.3	11.4
321. Mix solutions for developing and fixing radiographic film.	29.3		61.6	4.0	5.1	5.6	15.3	19.4	59.7	2.8	4.2		16.7	76.4	86.1	4.2	5.6	4.2
322. Apply extraoral radiographic procedures.	58.1	4.3	31.2	1.1	5.4	4.7		2.3	93.0	4.7			16.3	79.1	55.8	27.9	7.0	9.3
323. Apply bite-wing radiographic procedures.	36.1	5.2	44.3		14.4	3.0	3.0	3.0	91.0	3.0			11.9	85.1	55.2	19.4	4.5	20.9
324. Apply occlusal radiographic procedures.	53.8	2.2	29.7	4.4	9.9	15.2	10.9	4.3	69.6	4.3			8.7	87.0	45.7	26.1	8.7	19.6

OCCUPATIONAL ANALYSIS: Dental Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienist
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
325. Apply panoramic radiographic procedures.	61.7	1.1	29.8		7.4	7.3			92.7	4.9			12.2	82.9	58.5	14.6	12.2	14.6
326. Mount dental radiographs.	31.0	4.0	49.0	2.0	14.0	5.6		4.2	90.3	2.8	8.3	1.4	20.8	66.7	66.7	15.3	4.2	13.9
327. Label dental radiographs.	2.0	4.0	80.0		14.0	4.1	1.0	5.2	89.7	2.1	8.2	4.1	21.6	63.9	70.1	16.5	5.2	8.2
328. Clean X-ray processing equipment.	1.0	1.0	85.0		13.0	4.0	14.1	15.2	66.7		6.1	5.1	12.1	76.8	70.1	15.5	8.2	6.2
329. Position patient for radiographic examination.	4.1	3.1	77.6		15.3		1.1	1.1	97.9	4.3	2.1		13.8	79.8	66.3	19.6	9.8	4.3
330. Select film size appropriate for patient's mouth and indicated techniques.	7.1	3.1	72.5		17.3			3.3	96.7				26.4	73.6	60.7	19.1	10.1	10.1
331. Plan sequence of procedures for appointment or series of appointments.	19.8	29.2	41.7		9.4			1.3	98.7		2.7		21.3	76.0	63.0	13.7	9.6	13.7

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
332. Operate automatic processing equipment.	27.6	13.3	49.0		10.2	1.4		11.1	87.5		2.8	4.2	36.1	56.9	81.7	9.9	8.5	
333. Seat and dismiss patient from chair.		9.0	80.0		11.0	2.0	1.0	6.1	90.8	3.1	4.1	4.1	28.6	60.2	80.6	11.2	5.1	3.1
334. Apply coagulants or administer hemostatics.	62.8	16.0	19.1		2.1	16.7	8.3	22.2	52.8	2.9	5.9		29.4	61.8	38.2	11.8	8.8	41.2
335. Cut suture material after typing by dentist.	33.0	5.0	58.0		4.0	5.7	18.6	18.6	57.1		6.0	9.0	31.3	53.7	82.6	2.9	5.8	8.7
336. Irrigate oral cavity for rinsing.	27.0	4.0	62.0		7.0			1.3	98.7		6.6	3.9	18.4	71.1	78.9	6.6	7.9	6.6
337. Make proper disposition and distribution of medical or dental records.	20.0	25.0	43.0		12.0			1.2	98.8			2.4	23.2	74.4	63.4	13.4	8.5	14.6
338. Apply topical anesthetics.	34.8	12.0	45.7		7.6		3.4	5.1	91.5			5.1	32.2	62.7	59.6	14.0	14.0	12.3
339. Care for various pieces of dental equipment.	7.1	9.2	72.4		11.2	2.2	1.1	14.6	82.0		2.2	3.4	19.1	75.3	77.5	9.0	10.1	3.4
340. Retract oral tissues in surgical procedures.	23.5		72.4		4.1	8.6	2.5	16.1	72.8				11.1	88.9	69.1	16.0	9.9	4.9
341. Retract patient's cheek, lips, and tongue.	15.5	3.1	74.2		7.2	2.4		8.5	89.0	2.4		1.2	11.0	85.4	76.5	12.9	7.1	3.5
342 Prepare setup for local anesthetic injection.	12.9	2.0	75.2		9.9			3.4	96.6			1.1	27.5	71.4	74.7	13.2	7.7	4.4

OCCUPATIONAL ANALYSIS: Dental Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygieni
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
343. Place or remove rubber dam.	55.2	3.1	37.5		4.2	6.5		8.7	84.8		4.3	4.3	17.4	73.9	60.9	19.6	8.7	10.9
344. Prepare setup for gold foil restoration.	57.4	2.1	36.2		4.3	22.0			78.0	4.9	4.9	9.8	12.2	68.3	68.3	12.2	17.1	2.4
345. Anneal gold foil.	60.9		35.9		3.3	17.9			82.1	5.1	5.1	7.7	12.8	69.2	66.7	12.8	17.9	2.6
346. Place gold foil as directed by operator.	59.6	2.1	37.2		1.1	17.5	5.0	15.0	62.5			10.0	20.0	70.0	67.5	17.5	15.0	
347. Apply hand mallet in surgical procedures.	54.5	4.5	36.4		4.5	14.3		7.1	78.6		4.8	7.1	14.3	73.8	61.9	14.3	11.9	11.9
348. Hand dentist triturate amalgam.	21.4		72.4		6.1	1.3		2.6	96.1		2.6		28.9	68.4	76.3	9.2	11.8	2.6
349. Change engine belt on low-speed engine.	45.9	9.2	40.8		4.1	39.6		3.8	56.6		17.0	5.7	24.5	52.8	79.2	7.5	5.7	7.5

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
350. Preserve and incubate bacterial cultures.	72.4	2.3	20.7		4.6	36.0			64.0		12.0	16.0	28.0	44.0	56.0	8.0	12.0	24.0
351. Prepare hydrocolloid for impression.	41.9	1.1	51.6		5.4	7.5		11.3	81.1			7.5	30.2	62.3	75.5	11.3	9.4	3.8
352. Prepare rubber base material for impression.	45.4	2.1	51.5		1.0	17.5		29.8	52.6	3.6	3.6		21.4	71.4	82.1	7.1	5.4	5.4
353. Prepare acrylic for restoration.	32.0		63.9		4.1	11.9		10.4	77.6	6.0	3.0	1.5	20.9	68.7	80.6	9.0	4.5	6.0
354. Carve amalgam restorations.	62.6	11.0	23.1		3.3	14.3			85.7	5.7		8.6	37.1	48.6	48.6	11.4	8.6	31.4
355. Remove excess cement from crowns of the teeth.	30.1	14.0	49.5		6.5	9.4		10.9	79.7			3.1	29.7	67.2	64.1	12.5	9.4	14.1
356. Remove temporary cement.	47.3	11.0	35.2		6.6	5.9		13.7	80.4			7.8	47.1	45.1	47.1	25.5	11.8	15.7
357. Record oral conditions as directed by dentist.	13.4	5.2	75.3		6.2		1.2	6.0	92.8			3.6	18.1	78.3	80.7	10.8	7.2	1.2
358. Instruct patient in oral hygiene.	12.4	3.1	58.8		25.8			7.1	92.9				12.9	87.1	58.8	12.9	9.4	18.8
359. Hand dentist mallet gold foil.	51.6	3.3	44.0		1.1	20.9		4.7	74.4		9.3	2.3	20.9	67.4	76.7	9.3	14.0	
360. Assist dentist in hospital operative procedures.	40.4	5.3	48.9		5.3	34.5	7.3		58.2			5.5	21.8	72.7	50.9	24.5	17.0	7.5

OCCUPATIONAL ANALYSIS: Dental Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Dental Assistant 4 Dental Lab Technician 5 Dental Hygienis
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
361. Assist with gold foil restoration.	62.0	5.4	30.4	2.2		37.8		18.9	43.2	13.5	10.8		21.6	54.1	67.6	13.5	18.9	
362. Greet patient and escort to dental hygiene operatory.	38.5	12.5	20.8	2.1	26.0	3.3		1.6	95.1	3.3	11.5		8.2	77.0	72.1	9.8	4.9	13.1
363. Position patient and operator.	41.9	5.4	41.9	1.1	9.7	3.6		1.8	94.5	3.6	9.1		29.1	58.2	69.1	12.7	5.5	12.7
364. Perform dental charting.	32.0	11.3	41.2	1.0	14.4	3.0		1.5	95.5	3.0			20.9	76.1	67.2	13.4	4.5	14.9
365. Give home care instruction.	33.0	5.1	37.4		2.42	2.9		2.9	94.1	2.9			17.6	79.4	66.2	8.8	13.2	11.8
366. Remove subgingival calculus.	31.3	2.1	19.8	3.1	43.8	2.9		4.3	92.8	2.9	2.9	2.9	4.3	87.0	34.8	7.2	4.3	53.6
367. Remove supragingival calculus.	34.0	2.1	12.4	3.1	48.5	15.6		6.3	78.1	3.1	3.1	3.1	14.1	76.6	26.6	3.1	4.7	65.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
368. Polish finished restorations	59.8	7.2	10.3	1.0	21.6	10.8		13.5	75.7	4.9	4.9		19.5	70.7	46.3	12.2	7.3	34.1
369. Take and record patient's medical and dental history.	30.4	19.6	40.2	1.1	8.7	6.1		3.0	90.9	3.0			7.6	89.4	71.2	9.1	6.1	13.6
370. Administer anesthetics (local injection).	67.4	18.0	13.5	1.1		10.0		16.7	73.3	6.7			20.0	73.3	43.3	10.0	13.3	33.3
371. Remove overhanging margins of fillings.	66.7	12.9	8.6	1.1	10.8	6.7		20.0	73.3	6.7			6.7	86.7	50.0		3.3	46.7
372. Smooth enamel fractures.	73.1	15.1		1.1	10.8	7.7		7.7	84.6	8.7			17.4	73.9	23.8	4.8	4.8	66.7
373. Supervise other dental auxiliaries in routine dental tasks.	54.7	22.1	20.0	1.1	2.1	4.4		6.7	88.9	4.4	4.4		13.3	77.8	55.8	20.9	2.3	20.9
374. Other Competencies (List Below)																		

APPENDIX H

NURSING SERVICES
ADJUSTED FREQUENCIES

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.

Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily

Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance

Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.	10.0	26.0	26.0	6.0	32.0	23.8	19.0	54.8	2.4		4.8	2.4	14.3	78.6	50.0	10.0	17.5	20.0
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).	20.4	51.9	1.9	5.6	20.4	9.5	50.0	16.7	23.8	2.4		2.4	14.3	81.0	20.5	10.3	15.4	53.8
3. Orient new personnel to unit facilities, routines, and other personnel.	13.2	5.7	7.5	62.3	11.3	20.0	31.1	13.3	35.6	2.2	4.4	2.2	8.9	82.2	34.1	4.5	20.5	40.9
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.	26.4	58.5		3.8	11.3	27.8	25.0	11.1	36.1	5.4	2.7	5.4	16.2	70.3	27.8	11.1	13.9	47.2
5. Practice established routines and policies of the health care facility.	7.7	32.7	21.2	7.7	30.8	4.3	2.1		93.6		2.1	2.1	4.3	91.5	40.4	14.9	14.9	29.8
6. Supervise subordinates within the health care facility.	15.1	56.6	7.5	3.8	17.0	11.6	4.7	7.0	74.4	4.5	2.3	2.3	2.3	88.6	9.5	16.7	19.0	54.8
7. Give "on the job" instruction.	11.3	41.5	7.5	5.7	34.0	13.3	4.4	2.2	80.0			2.3	11.6	86.0	15.6	22.2	26.7	35.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
8. Advise staff concerning medical jurisprudence.	18.4	75.5			6.1	32.5	20.0	17.5	30.0	7.5	5.0	5.0	12.5	70.0	7.7	7.7	10.3	74.4
9. Develop criteria for the selection of records for review and retention.	20.4	73.5	2.0	2.0	2.0	20.0	60.0		20.0		5.7	2.9	20.0	71.4	14.3		14.3	71.4
10. Establish work priorities and schedule work assignments.	8.2	77.6	2.0	4.1	8.2	9.3	7.0	9.3	74.4	2.3	2.3	4.7	7.0	83.7	11.6		23.3	65.1
11. Identify operational deficiencies and recommend corrections.	12.2	73.5	4.1	2.0	8.2	19.0	11.9	9.5	59.5	2.4	4.8	2.4	4.8	85.7	9.5	11.9	16.7	61.9
12. Evaluate subordinate employee performance.	20.8	67.9			11.3	29.3	26.8	7.3	36.6	2.4	2.4	2.4	14.6	78.0	7.3	7.3	22.0	63.4
13. Develop job description.	22.4	69.4		2.0	6.1	65.8	18.4	2.6	13.2	5.3	2.6		15.8	76.3	10.5	5.3	15.8	68.4
14. Consult with health professionals on purchasing, constructing, or using special appliances.	16.7	75.0	4.2	2.1	2.1	40.5	32.4	16.2	10.8	2.7		2.7	27.0	67.6	13.5		16.2	70.3
15. Interview, evaluate, or hire prospective personnel.	20.8	71.7		1.9	5.7	20.5	28.2	23.1	25.6	2.6			15.4	82.1	10.3		15.4	74.4
16. Maintain standards of employees' personal hygiene as related to job performance.	14.3	75.5	2.0	2.0	6.1	15.4	5.1	17.9	61.5				23.1	76.9	7.7	2.6	23.1	66.7
17. Insure that all subordinates are on duty.	18.0	74.0	2.0		6.0	2.8	8.3		88.9			2.8	13.9	83.3	5.7		11.4	82.9
18. Attend and participate in staff meetings.	21.6	39.2	9.8		29.4	7.3	53.7	24.4	14.6	2.5			17.5	80.0	25.6	15.4	23.1	35.9

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
19. Develop policies and establish departmental procedures.	13.2	79.2	1.9		5.7	28.6	19.0	31.0	21.4		4.8		26.2	69.0	4.8		9.5	85.7
20. Inform personnel of new or changed policies and procedures.	13.2	81.1			5.7	16.7	19.0	31.0	33.3		4.9		19.5	75.6	5.1		12.8	82.1
21. Provide liaison between doctor and other professional associates.	9.4	79.2	1.9	3.8	5.7	4.5	6.8	29.5	59.1		2.3		11.4	86.4	4.5		13.6	81.8
22. Coordinate work schedules with other departments.	22.6	71.7		1.9	3.8	2.7	18.9	29.7	48.6		2.7	5.4	18.9	73.0	5.4		21.6	73.0
23. Teach special procedures to department members, students, or health care professionals.	17.0	62.3	1.9	1.9	17.0	9.5	14.3	38.1	38.1		2.4		11.9	85.7	4.8	4.8	16.7	73.8
24. Teach safety techniques as needed.	15.1	66.0	1.9		17.0	16.7	19.0	33.3	31.0		2.4	4.8	11.9	81.0	4.8	2.4	19.0	73.8
25. Inform personnel of potential hazards in their working area.	11.1	68.5		1.9	18.5	13.3	13.3	33.3	40.0		2.2	6.7	13.3	77.8	4.4	8.9	20.0	66.7

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
26. Demonstrate tact in giving and withholding information concerning patient care or operations of the health care facility.	8.0	38.0	16.0	2.0	36.0	6.5	2.2	10.9	80.4			6.5		73.5	41.3	17.4	17.4	23.9
27. Represent the department and facility at community meetings.	16.7	70.8	2.1		10.4	40.5	40.5	10.8	8.1	2.7		10.8	29.7	56.8	2.8	5.6	16.7	75.0
28. Attend meetings and participate in community activities related to doctor's practice.	38.8	49.0		2.0	10.2	59.3	25.9	14.8		3.7		11.1	44.4	40.7	7.7	7.7	19.5	61.5
29. Arrange meetings, conferences, or travel accommodations.	22.0	76.0			2.0	50.0	32.4	11.8	5.9		5.9	2.9	38.2	52.9	20.6	17.6	11.8	50.0
30. Assist in the orientation of volunteers, students, and new staff.	15.1	49.1	5.7	3.8	26.4	26.2	33.3	21.4	19.0	2.4	4.8	2.4	21.4	69.0	9.8	12.2	12.2	65.9
31. Recommend materials to be used in training volunteers.	22.4	61.2	10.2	2.0	4.1	54.3	25.7	11.4	8.6	2.9	2.9	8.6	28.6	57.1	5.9	2.9	26.5	64.7
32. Train volunteers in specific techniques.	31.9	55.3	4.3		8.5	51.7	27.6	13.8	6.9	3.4		10.3	20.7	65.5	3.6		21.4	75.0
33. Participate in public relations activities as directed.	24.5	57.1	2.0	2.0	14.3	44.1	32.4	5.9	17.6	2.9		17.6	11.8	67.6	9.1	3.0	15.2	72.7
34. Obtain and deliver supplies for patient's entertainment or recreation.	38.8	18.4	22.4	2.0	18.4	27.6	3.4	13.8	55.2	3.6	3.6	7.1	14.3	71.4	55.6	18.5		25.9
35. Inventory, sign for, and place patient's personal possessions in safe place.	16.0	24.0	30.0	2.0	28.0	7.0	2.3		90.7	2.3		2.3	18.6	76.7	45.2	21.4	16.7	16.7
36. Assist patient in dressing and undressing.	8.0	10.0	50.0	4.0	28.0			4.3	95.7			6.5	15.2	78.3	58.7	10.9	17.4	13.0

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
37. Assist patient with personal hygiene and grooming.	14.3	10.2	55.1	2.0	18.4	9.3			90.7	2.3			18.6	79.1	65.9	9.8	12.2	12.2
38. Assist patient in walking.	2.1	8.3	54.2	8.3	27.1	2.0		6.1	91.8			2.0	24.5	73.5	59.6	10.6	17.0	12.8
39. Assist patient into and out of bed.	17.0	6.4	53.2	4.3	19.1	4.8	2.4	4.8	88.1			2.4	19.0	78.6	65.0	12.5	12.5	10.0
40. Transport patient on stretcher or wheelchair.	10.4	6.3	54.2	2.1	27.1	6.7	2.2	4.4	86.7				20.0	80.0	60.5	9.3	16.3	14.0
41. Prepare food so patient may feed self.	20.8	14.6	47.9		16.7	4.9		2.4	92.7			2.4	17.1	80.5	64.1	12.8	12.8	10.3
42. Assist patient in use of commode, urinal, or bedpan.	14.6	8.3	54.2	2.1	20.8	7.0	4.7	7.0	81.4				19.0	81.0	58.5	12.2	17.1	12.2
43. Assist with or remove fecal impaction.	19.6	10.9	28.3	2.2	39.1	10.3	17.9	7.7	64.1				5.1	94.9	32.4	16.2	24.3	27.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
44. Report violations of regulations.	14.3	40.8	14.3	4.1	26.5	20.9	11.6	9.3	58.1		2.3	2.3	7.0	88.4	24.4	9.8	22.0	43.9
45. Assist in resolving patient complaints.	8.0	60.0	6.0	8.0	18.0	4.7	11.6	14.0	69.8		2.2		4.4	93.3	18.6	14.0	18.6	48.8
46. Obtain signature on various patient or family consent forms.	15.2	60.9	4.3	4.3	15.2	2.6	2.6	7.9	86.8				12.5	87.5	10.0	7.5	20.0	62.5
47. Teach patient or family preventative general health care.	20.0	50.0	4.0		26.0	5.3		2.6	92.1				15.0	85.0	17.5	5.0	25.0	52.5
48. Prepare patient to see clergy or receive sacraments.	19.6	25.5	21.6	2.0	31.4	4.9	7.3	19.5	68.3			2.4	12.2	85.4	36.6	14.6	14.6	34.1
49. Assist patient in active or passive exercise.	18.4	24.5	24.5	6.1	26.5	7.5		10.0	82.5				17.1	82.9	43.9	19.5	12.2	24.4
50. Obtain information from patient or family.	10.0	30.0	20.0	2.0	38.0	6.7			93.3				6.7	93.3	37.8	11.1	17.8	33.3
51. Orient patient or family to health care facility.	8.0	30.0	18.0	8.0	36.0	6.5		4.3	89.1	2.2			19.6	78.3	44.4	13.3	8.9	33.3
52. Receive patients, explain tests and procedures to them, and allay their fears.	4.1	24.5	14.3	8.2	49.0	4.3			95.7				6.4	93.6	23.4	23.4	14.9	38.3
53. Attend to patient's comfort before, during, and after examination, tests, or treatment.	4.1	14.3	28.6	4.1	49.0	2.1			97.9				2.1	97.9	42.6	21.3	12.8	23.4
54. Aid patient in completing insurance forms.	27.7	61.7		8.5	2.1		8.6	8.6	82.9		8.6		31.4	60.0	52.8	8.3	8.3	22.2

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.

Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily

Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance

Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
55. Explain postoperative instructions to patient.	16.7	53.7	3.7	3.7	22.2	13.9			83.3			11.1	5.6	83.3	13.9	8.3	25.0	52.8
56. Explain fees to patient.	30.6	61.2		4.1	4.1	3.1			96.9		3.1		9.4	87.5	43.8	15.6	18.8	21.9
57. Assist patient in planning for health care facility.	39.6	52.1			8.3	17.9	7.1	7.1	67.9	14.3			10.7	75.0	14.3	17.9	14.3	53.6
58. Administer manual massage.	23.4	[illegible]	25.5	2.1	17.0	8.1	2.7	2.7	86.5			2.7	18.9	78.4	48.6	10.8	13.5	27.0
59. Explain therapy procedures in lay terms.	10.2	44.9	8.2	4.1	32.7	2.4	7.1	2.4	88.1			9.8	12.2	78.0	9.8	14.6	26.8	48.8
60. Explain follow-up services to patient.	18.4	46.9	10.2	4.1	20.4	5.3		7.9	86.8			5.3	21.1	73.7	26.3	10.5	15.8	47.4
61. Help patients develop positive attitudes toward their illness or confinement.	12.0	50.0	8.0	2.0	28.0	4.8	2.4	11.9	81.0			4.8	11.9	83.3	16.7	11.9	16.7	54.8

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
62. Straighten patient's room.	24.5	18.4	40.8		16.3	2.7			97.3				16.7	83.3	72.2	11.1	8.3	8.3
63. Assist in establishing a comfortable relationship between the patient and the health care professional.	9.8	41.2	9.8	3.9	35.3		4.5		95.5				9.3	90.7	23.3	11.6	20.9	44.2
64. Observe negative or positive physical and emotional responses to treatments.	8.0	34.0	10.0	2.0	46.0	2.2	4.4		93.3		2.2		6.7	91.1	20.0	20.0	26.7	33.3
65. Interpret patient's signs, symptoms, and behaviors.	12.0	40.0	4.0	4.0	40.0	2.4	2.4	2.4	92.9				4.8	95.2	11.9	7.1	31.0	50.0
66. Identify strengths and weaknesses of care plan.	18.4	61.2	2.0	2.0	16.3	8.1			89.2	5.4			2.7	91.9	10.8	8.1	16.2	64.9
67. Observe patient's general physical condition, appearance, and behavior.	5.6	24.1	20.4	3.7	46.3				100.0			2.1	2.1	95.7	14.9	23.4	29.8	31.9
68. Observe, measure, and record patient fluid intake and output.	19.2	15.4	34.6	1.9	28.8	2.4			97.6				9.8	90.2	57.1	4.8	16.7	21.4
69. Record and chart vital signs and/or other conditions as directed by health care professional.	8.0	24.0	26.0	4.0	38.0				100.0			2.3	7.0	90.7	34.1	9.1	31.8	25.0
70. Use the intercom.	22.0	24.0	26.0	4.0	24.0	5.3		2.6	92.1	2.6	2.6	2.6	13.2	78.9	72.5	15.0	5.0	7.5
71. Follow established admitting procedures.	14.0	32.0	24.0	4.0	26.0			2.5	97.5			2.5	7.5	90.0	59.5	11.9	19.0	9.5
72. Maintain a use record on special equipment.	38.8	49.0	4.1	2.0	6.1			11.5	88.5		3.8		23.1	73.1	55.2	6.9	6.9	31.0

OCCUPATIONAL ANALYSIS: Nursing Services

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	Competency Statement	Performance					Use Frequency				Importance					Training			
		1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
73.	Conduct routine financial matters of employer, including collecting fees, making deposits, and sending statements.	31.3	60.4		6.3	2.1	3.3	6.7	10.0	80.0			3.3	13.3	83.3	63.3	16.7	13.3	6.7
74.	Complete insurance forms.	30.6	61.2		6.1	2.0			9.7	90.3				22.6	77.4	61.3	22.6	9.7	6.5
75.	Schedule patient treatment sessions.	20.4	55.1		6.1	18.4	8.3		2.8	88.9		2.8	2.8	8.3	86.1	47.2	16.7	16.7	19.4
76.	Obtain charts of patients for whom information is requested.	16.3	65.3		6.1	12.2			15.4	84.6				17.9	82.1	42.1	15.8	13.2	28.9
77.	Prepare patient record folder or chart.	14.3	75.5	2.0	4.1	4.1		5.1	5.1	89.7			5.1	20.5	74.4	64.1	10.3	10.3	15.4
78.	Transfer patient food order to patient records.	24.5	38.8	6.1	4.1	26.5		5.7		94.3			8.6	14.3	77.1	65.7	25.7	5.7	2.9
79.	Sort, file, or organize documents, certificates, and patient records.	18.4	65.3		6.1	10.2			5.6	94.4			2.8	11.1	86.1	63.9	8.3	13.9	13.9

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
80. Prepare daily census.	18.4	69.4	8.2	4.1		2.8		2.8	94.4			8.3	22.2	69.4	83.3	8.3		8.3
81. Prepare requisitions.	12.2	63.3	6.1	4.1	14.3			15.4	84.6			7.7	12.8	79.5	82.1	5.1	7.7	5.1
82. Maintain appointment control.	24.5	61.2	2.0	4.1	8.2		6.3	6.3	87.5				15.6	84.4	71.9		9.4	18.8
83. Maintain state and federal tax information and prepare tax forms.	36.7	57.1		6.1		7.7	42.3	3.8	46.2				19.2	80.8	61.5	3.8	11.5	23.1
84. Maintain record of all requests for patient information.	28.6	63.3		6.1	2.0		13.3	20.0	66.7				20.0	80.0	66.7	10.0	16.7	6.7
85. Process mail and correspondence (both incoming and outgoing).	20.4	73.5		4.1	2.0			3.8	91.2				35.3	64.7	79.4	8.8	8.8	2.9
86. Process payroll time cards.	20.4	75.5		4.1		2.9	5.9	52.9	38.2				11.8	88.2	76.5	5.9	5.9	11.8
87. Assist patient in placing telephone calls.	16.3	32.7	34.7	2.0	14.3		7.7	5.1	87.2		5.1	2.6	28.2	64.1	92.3	5.1		2.6
88. Handle telephone calls.	3.8	60.4	9.4	7.5	18.9				100.0		4.3		19.6	76.1	68.1	4.3	10.6	17.0
89. Prepare correspondence, reports, or summaries, but not forms.	12.2	77.6		6.1	4.1		5.1	15.4	79.5			2.6	12.8	84.6	61.5	12.8	10.3	15.4
90. Mount, label, and file radiographs.	32.7	59.2		4.1	4.1	3.4	6.9	6.9	82.8			3.4	17.2	79.3	66.7	13.3		20.0

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	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
91. Maintain a patient recall system.	54.2	41.7		4.2		11.1	11.1	5.6	72.2				38.9	61.1	77.8		16.7	5.6
92. Assist patient in writing letters and messages.	21.6	25.5	37.3	2.0	13.7	12.5	7.5	10.0	70.0			7.5	32.5	60.0	90.0			10.0
93. Record patient's medical or dental history.	30.0	44.0	4.0	4.0	18.0		9.1	9.1	81.8				9.1	90.9	24.2	9.1	18.2	48.5
94. Communicate menu changes.	30.6	49.0	14.3		6.1	8.3		3.2	96.8				12.9	87.1	74.2	6.5	6.5	12.9
95. Distribute drinking water.	24.5	12.2	57.1		6.1				91.7		5.6		25.0	69.4	97.2	2.8		
96. Record nursing care.	16.0	28.0	16.0		40.0				100.0				7.7	92.3	17.9	25.6	17.9	38.5
97. Check and maintain charting of treatments, medications, procedures, orders, and observations.	12.0	28.0	6.0		54.0				100.0				2.4	97.6	4.9	24.4	26.8	43.9

		1	2	3	4	5	i	M	W	D	1	2	3	4	5	a	b	c	d
98.	Receive and organize handling of medication samples.	38.8	38.8	2.0	4.1	16.3		14.3	10.7	75.0			3.6	28.6	67.9	21.4	3.6	25.0	50.0
99.	Operate office business machines.	18.4	75.5		6.1				2.8	97.2			2.8	19.4	77.8	61.1	13.9	5.6	19.4
100.	Initiate and maintain a medical record file for patients.	26.5	59.2	2.0	6.1	6.1			6.3	93.8				12.5	87.5	46.9	12.5	9.4	31.3
101.	Follow up on house calls and hospital visits for information needed for office medical record folders.	52.8	43.4		1.9	1.9	20.0		10.0	70.0				35.0	65.0	55.0	10.0	10.0	25.0
102.	Establish and maintain a control system for location of medical record folders.	31.3	64.6		2.1	2.1		10.3	6.9	82.8			3.4	13.8	82.8	55.2	13.8	10.3	20.7
103.	Maintain catalogs of supplies and equipment.	30.6	57.1	2.0	4.1	6.1	3.3	16.7	13.3	66.7			3.3	40.0	56.7	60.0	13.3	6.7	20.0
104.	Maintain a fee schedule for services.	31.3	62.5		4.2	2.1		31.0	10.3	58.6				17.2	82.8	41.4	20.7	10.3	27.6
105.	Record information on blood record card.	34.7	55.1	2.0	2.0	6.1		7.4	7.4	85.2					100.0	42.9	3.6	17.8	35.7
106.	Follow established procedures in filing incident reports.	20.4	51.0	2.0	2.0	24.5	2.9	5.7	20.0	71.4			8.6	8.6	82.9	37.1	8.6	20.0	34.3
107.	Receive and record physician's verbal orders.	8.2	46.9	4.1	2.0	38.8	2.4	2.4		95.1				4.9	95.1	5.3	18.4	28.9	47.4
108.	Follow established procedures for processing authorization forms including autopsy, surgery, diagnostic tests, and discharge forms.	22.4	51.0	2.0		24.5				100.0				5.9	94.1	26.5	14.7	23.5	35.3

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
109. Transcribe physician's orders.	12.2	42.9	4.1		40.8			2.4	97.6				2.4	97.6	17.1	22.0	17.1	43.9
110. Apply restraints.	18.0	10.0	38.0		34.0	4.9		22.0	73.2			2.4	12.2	85.4	63.4	19.5	7.3	9.8
111. Adjust side rails and height of bed.	20.0	10.0	48.0	2.0	20.0	2.6			97.4			2.6	5.1	92.3	79.5	7.7	5.1	7.7
112. Open sterile packages and packs.	19.6	23.5	17.6	2.0	37.3			5.3	94.7			2.6	2.6	94.7	28.9	15.8	28.9	25.3
113. Make patient's bed, occupied or unoccupied.	17.6	11.8	49.0		21.6				100.0			4.9	12.2	82.9	73.2	9.8	7.3	9.8
114. Operate circle beds.	38.3	17.0	14.9		29.8	50.0			50.0					100.0	38.5	15.4	23.1	23.1
115. Check and position the signal cord for patient.	30.0	8.0	44.0		18.0				100.0			2.9		97.1	85.7	5.7	2.9	5.7

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
116. Use overbed cradles.	34.7	6.1	30.6		28.6	21.9	12.5	6.3	59.4				12.5	87.5	59.4	25.0	6.3	9.4
117. Give general skin care to patients.	24.0	8.0	48.0		20.0	5.4			94.6				2.7	97.3	70.3	18.9	5.4	5.4
118. Use footboards.	28.0	10.0	38.0		24.0	20.0	8.6		71.4				2.9	97.1	60.0	25.7	5.7	8.6
119. Turn and place patient in correct body alignment.	27.1	12.5	37.5		22.9				100.0				2.9	97.1	62.9	17.1	11.4	8.6
120. Use sheepskins or lambswool pads.	24.0	10.0	42.0		24.0				100.0				8.3	91.7	66.7	16.7	8.3	8.3
121. Use trochanter or sandbags.	22.0	16.0	26.0		36.0	18.9	5.4		75.7				10.8	89.2	43.2	21.6	13.5	21.6
122. Teach patient, family, staff the relation of rehabilitation activities to daily living.	30.6	51.0	4.1		14.3	3.3	6.7	16.7	73.3				6.7	93.3	10.0	3.3	16.7	70.0
123. Use air rings or doughnuts.	32.0	12.0	34.0		22.0	18.8		9.4	71.9				15.6	84.4	68.8	9.4	6.3	15.6
124. Alternate pressure mattresses.	35.4	12.5	27.1		25.0	3.2	3.2	6.5	87.1				9.7	90.3	58.1	9.7	16.1	16.1
125. Prepare and give between-meal nourishment of liquids.	26.0	8.0	36.0		30.0			2.7	97.3			2.7	10.8	86.5	62.2	27.0	5.4	5.4
126. Prepare and give solid foods.	24.0	26.0	32.0		18.0	5.3		2.6	92.1			2.8	2.8	94.4	78.9	7.9	5.3	7.9

OCCUPATIONAL ANALYSIS: Nursing Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
127. Irrigate rectum (give enema).	21.6	9.8	33.3		35.3	8.3	5.6	8.3	77.8		5.6			94.4	41.7	25.0	8.3	25.0
128. Empty drainage bottles and bags.	22.4	8.2	42.9	2.0	24.5	5.9		2.9	91.2		2.9			97.1	76.5	14.7	2.9	5.9
129. Assist with or apply T, straight, Scultetus', breast, and triangular (sling) binders.	27.7	10.6	12.8	2.1	46.8	30.0	3.3	10.0	56.7		3.3		16.7	80.0	43.3	20.0	26.7	10.0
130 Assist with or apply ace bandages and elastic stockings.	14.3	10.2	28.6	2.0	44.9	10.5	2.6	10.5	76.3			2.6	18.4	78.9	42.1	31.6	21.1	5.3
131. Test urine for sugar and acetone.	9.4	15.1	41.5	3.8	30.2	7.0			93.0				11.6	88.4	65.1	7.0	16.3	11.6
132. Prepare oral dose using measure for manufacturer's bottle or by mixing and diluting.	33.3	25.0		4.2	37.5	3.7		3.7	92.6					100.0	7.4	14.8	37.0	40.7
133. Prepare injections, using measured or sterilized dose.	12.5	18.8	2.1	4.2	62.5	5.3		7.9	86.8					100.0	2.6	23.7	31.6	42.1

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
134. Receive urine specimen from patient, record pertinent data on container, and place in proper storage.	10.2	16.3	42.9	4.1	26.5	2.6		7.9	89.5				10.5	89.5	68.4	13.2	10.5	7.9
135. Select proper accessories for radiographic techniques.	35.4	58.3	2.1	2.1	2.1		12.5	8.3	79.2				16.7	83.3	4.2	20.8	25.0	50.0
136. Evaluate adequacy of work space.	29.2	68.8			2.1	30.8	26.9		42.3			3.7	37.0	59.3	11.1	7.4	11.1	66.7
137. Improvise or modify equipment for special requirements.	31.3	56.3	2.1	4.2	6.3	29.6	18.5		51.9			3.7	37.0	59.3	11.1	25.9	14.8	48.1
138. Prepare surgical tray.	23.1	28.8	3.8	5.8	38.5	2.8		13.9	83.3				11.1	88.9	27.8	13.9	22.2	36.1
139. Prepare general examination tray.	22.9	25.0	2.1	4.2	45.8			9.4	90.6				12.5	87.5	37.5	15.6	25.0	21.9
140. Prepare injection tray.	25.0	16.7	4.2	2.1	52.1			3.1	96.9					100.0	12.5	25.0	25.0	37.5
141. Prepare gynecological tray.	27.1	20.8	4.2	4.2	43.8			3.2	96.8			3.2	3.2	93.5	38.7	16.1	22.6	22.6
142. Prepare rectal tray.	27.1	20.8	6.3	2.1	43.8		3.2	3.2	93.5			3.2	3.2	93.5	38.7	19.4	22.6	19.4
143. Prepare and give vaginal douche.	26.5	8.2	22.4	2.0	40.8	15.6		6.3	78.1				9.4	90.6	37.5	28.1	12.5	21.9
144. Know and apply basic first aid techniques including cardiac resuscitation.	11.8	39.2	7.8		41.2	24.4	12.2	7.3	56.1				2.4	97.6	22.0	19.5	19.5	39.0

OCCUPATIONAL ANALYSIS: Nursing Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
145. Know the function of special beds and frames and be able to apply this knowledge.	30.6	16.3	10.2	4.1	38.8	23.5		2.9	73.5				8.8	91.2	26.5	20.6	26.5	26.5
146. Set up and assist with surgical procedures.	17.0	34.0	3.8	3.8	41.5	4.9	2.4	9.8	80.5				7.3	92.7	7.3	12.2	34.1	46.3
147. Recognize the need to redo a cast.	27.1	41.7	2.1		29.2	31.3	9.4	12.5	46.9				25.0	75.0	3.1	9.4	34.4	53.1
148. Set up and adjust traction equipment for use by patient.	28.0	42.0	10.0		20.0	9.4	9.4	12.5	68.8				9.4	90.6	25.0	6.3	31.3	37.5
149. Check and adjust, as necessary, limb braces for function, comfort, and fit.	33.3	50.0	2.1		14.6	18.5		7.4	74.1				6.9	93.1	6.7	10.0	16.7	66.7
150. Recognize the need for adjustment in traction devices.	31.3	50.0			18.8	16.7	10.0	6.7	66.7					100.0	3.3	23.3	70.0	3.3
151. Assist with EKG test.	22.4	34.7	14.3	4.1	24.5	8.8	2.9		88.2			5.9	8.8	85.3	47.1	14.7	23.5	14.7

		1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
152.	Know the function of limb braces and be able to apply them.	35.4	45.8			18.8	17.9		14.3	67.9				17.9	82.1	3.6	14.3	17.9	64.3
153.	Apply simple casts and splints.	54.3	32.6		2.2	10.9	10.5		10.5	78.9				15.8	84.2	5.3		10.5	84.2
154.	Recognize signs of "plaster breakdown" in casts, and repair same.	46.9	38.8	2.0		12.2	14.3	4.8	14.3	66.7	4.8		4.8	19.0	71.4		10.0	20.0	70.0
155.	Recognize various orthopedic operative procedures and the equipment these procedures require.	35.4	50.0		2.1	12.5	24.1	6.9	65.5	3.4	3.4		3.4	10.3	82.8	3.6	3.6	25.0	67.8
156.	Set up the complete surgical "back table" and "Mayo stand."	38.8	34.7	4.1		22.4	14.8		3.7	81.5					100.0	7.4	18.5	14.8	59.3
157.	Perform routine measurement of range of motion and muscle testing.	44.9	42.9		2.0	10.2		8.7	8.7	82.6				8.7	91.3	4.3	13.0	4.3	78.3
158.	Prepare statistical reports.	24.5	73.5			2.0	6.1	12.1	18.2	63.6		3.0		21.2	75.8	45.5	[illegible]	6.1	42.4
159.	Inform and advise administration as to trends and significant data.	34.7	63.3			2.0	17.9	10.7	10.7	60.7				21.4	78.6	17.9	3.6	10.7	67.9
160.	Take or transcribe minutes of meetings.	34.7	59.2			6.1	3.6	46.4	28.6	21.4			3.6	46.4	50.0	17.9	17.9	14.3	50.0
161.	Check records (charts) for deficiencies.	20.4	67.3		2.0	10.2		32.4	5.4	62.2				21.6	78.4	16.2	8.1	18.9	56.8
162.	Code diseases and operations using prescribed classification system.	46.9	53.1					12.5	16.7	70.8				25.0	75.0	50.0	8.3	12.5	29.2

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
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Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
163. Notify physicians concerning incomplete records.	36.7	59.2		2.0	2.0	3.7	11.1	29.6	55.6			3.7	25.9	70.4	33.3	7.4	22.2	37.0
164. Transcribe from recording machines using magnetic belts or recorded discs.	42.9	55.1		2.0		7.7			92.3			3.8	19.2	76.9	26.9	26.9	23.1	23.1
165. Type information onto various forms.	25.0	70.8		4.2		8.8	8.8		82.4	2.9		2.9	26.5	67.6	38.2	17.6	20.6	14.7
166. Change discs, belts, or tapes on recording equipment.	39.6	60.4				10.0		6.7	83.3	3.3		3.3	16.7	76.7	43.3	10.0	16.7	30.0
167. Make or approve menu changes.	46.9	51.0			2.0		8.3	8.3	83.3				20.8	79.2	8.3	8.3	20.8	62.5
168. Provide menu substitutions, second portions, or special items for patient needs.	40.8	51.0	6.1		2.0				100.0				22.2	77.8	25.9	3.7	7.4	63.0
169. Prepare menu slips and tray cards.	40.8	51.0	4.1		4.1				100.0				22.2	77.8	77.8	7.4	7.4	7.4

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
170. Feed patient.	22.0	10.0	50.0		18.0		5.1		94.9				12.8	87.2	74.4	12.8	5.1	7.7
171. Check menu with tray contents and correct where needed.	34.7	20.4	20.4		24.5				100.0				6.3	93.8	59.4	25.0	9.4	6.3
172. Give tube feedings.	22.4	26.5	6.1		44.9	14.3			85.7			5.6	2.8	91.7	22.2	22.2	19.4	36.1
173. Collect food trays.	34.7	10.2	44.9		10.2		6.3	3.1	90.6	3.1	3.1	12.5	6.3	75.0	93.8	6.3		
174. Assemble late or hold food trays.	44.9	32.7	14.3	2.0	6.1			4.0	96.0		4.0	12.0	12.0	72.0	92.0		4.0	4.0
175. Make recovery anesthetic bed.	32.0	10.0	34.0		24.0	8.8		2.9	88.2				17.6	82.4	70.6	20.6	5.9	2.9
176. Exercise precautions in administering and handling potentially dangerous agents.	34.5	44.9	4.1		26.5	14.3		5.7	80.0				2.9	97.1	5.7	11.4	34.3	48.6
177. Apply and remove braces.	37.5	39.6	6.3		16.7	19.2	15.4	3.8	61.5				8.3	91.7	11.5	15.4	23.1	50.0
178. Administer nasogastric.	31.9	31.9		4.3	31.9	15.4		19.2	65.4				3.8	96.2	7.7	11.5	19.2	61.5
179. Regulate intravenous fluids.	18.4	44.9	2.0		34.7	10.8		5.4	83.8				2.7	97.3	2.7	13.5	29.7	54.1
180. Irrigate bladder, colostomy, or wound.	22.9	25.0	14.6		37.5	20.6		2.9	76.5			5.9		94.1	11.8	26.5	14.7	47.1

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
181. Instill solutions into bladder or wound.	20.4	22.4	4.1	4.1	49.0	16.2	8.1	8.1	67.6		2.7		5.4	91.9	8.1	24.3	21.6	45.9
182. Connect catheters and tubing to drainage.	28.0	14.0	18.0		40.0	5.6		8.3	86.1				2.8	97.2	33.3	16.7	16.7	33.3
183. Check and maintain drainage tubing with or without suction.	20.4	16.3	18.4	2.0	42.9	7.7	5.1		87.2			2.6	7.7	89.7	35.9	20.5	17.9	25.6
184. Insert urinary catheters.	16.3	18.4	16.3	4.1	44.9	7.7	2.6	10.3	79.5			2.6	5.1	92.3	21.6	21.6	24.3	32.4
185. Assist with or apply rib belts.	25.0	16.7	22.9	2.1	33.3	23.5	2.9	8.8	64.7		2.9	5.9	11.8	79.4	44.1	11.8	20.6	23.5
186. Apply hot bottle, hot and cold packs, hot and cold soaks, hot and cold compresses, or cold ice bag.	14.3	14.3	36.7		34.7	12.2		12.2	75.6			4.8	16.7	78.6	45.2	21.4	14.3	19.0
187. Administer sitz, tepid, and alcohol baths.	26.0	12.0	24.0		38.0	5.4		8.1	86.5				10.8	89.2	45.9	24.3	16.2	13.5

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
188. Apply thermal blanket.	39.2	11.8	19.6	2.0	27.5	17.2			82.8		3.4		10.3	86.2	55.2	13.8	17.2	13.8
189. Give oral medications.	14.3	18.4	4.1		63.3	2.5			97.5				2.5	97.5	2.5	22.5	30.0	45.0
190. Do nose, throat, or wound cultures.	22.4	40.8	4.1		32.7	11.8		11.8	76.5				2.9	97.1	9.7	16.1	25.8	48.4
191. Give colostomy care.	24.5	12.2	18.4	2.0	42.9	8.6	2.9	11.4	77.1				2.9	97.1	31.4	17.1	20.0	31.4
192. Give perineal care.	29.2	10.4	27.1	2.1	31.3	3.1			96.9				3.1	96.9	40.6	28.1	18.8	12.5
193. Assist personnel in giving nursing care.	25.5	13.7	29.4	2.0	29.4			2.9	97.1			2.9		97.1	60.0	8.6	14.3	17.1
194. Review scheduled appointments with doctor.	40.8	26.5	8.2	6.1	18.4			8.3	91.7			4.2	8.3	87.5	54.2	8.3	20.8	16.7
195. Post totals from original entry record to combined or special journals.	56.3	35.4		6.3	2.1		11.8		88.2			5.9	5.9	88.2	64.7		11.8	23.5
196. Centrifuge sample of the urine specimen.	39.1	50.0		4.3	6.5				100.0				4.0	96.0	32.0	12.0	12.0	44.0
197. Perform bio-chemical tests (e.g. glucose or protein), using paper strips or tablet.	14.6	37.5	14.6	6.3	27.1	5.4	8.1		86.5					100.0	29.7	21.6	21.6	27.0
198. Perform bile tests.	40.0	48.9	2.2	4.4	4.4	21.7		4.3	73.9					100.0	13.0	13.0	21.7	52.2

OCCUPATIONAL ANALYSIS: Nursing Services

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	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
199. Examine urine specimens microscopically.	37.0	52.2		6.5	4.3				100.0					100.0	16.0	12.0	20.0	52.0
200. Obtain blood specimen from capillary.	30.4	54.3		10.9	4.3			3.6	96.4					100.0	17.9	10.7	21.4	50.0
201. Prepare and stain blood smears.	39.1	52.2		6.5	2.2	4.2			95.8				8.3	91.7	.617	12.5	20.8	50.0
202. Perform hematocrit tests.	37.0	54.3		8.7				8.0	92.0				4.0	96.0	16.0	12.0	24.0	48.0
203. Perform red blood cell count (RBC).	39.1	52.2		6.5	2.2				100.0				4.8	95.2	12.5	12.5	20.8	54.2
204. Perform erythrocyte sedimentation rate (SED RATE).	39.1	52.2		6.5	2.2			4.2	95.8				4.2	95.8	8.3	12.5	20.8	58.3
205. Perform white blood cell count (WBC).	39.1	52.2		6.5	2.2			4.2	95.8				4.2	95.8	8.3	12.5	25.0	54.2

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
206. Operate colorimeter.	40.0	53.3		6.7		9.1		4.5	86.4				13.6	86.4	4.5	13.6	22.7	59.1
207. Innoculate specimen in culture media.	39.1	54.3		6.5				13.0	87.0				17.4	82.6	8.7	13.0	21.7	56.5
208. Assist in obtaining smears.	24.5	51.0	2.0	6.1	16.3	3.1	6.3	18.8	71.9		3.1		18.8	78.1	18.8	15.6	15.6	50.0
209. Assist in obtaining tissue specimens.	38.8	42.9	2.0	6.1	10.2	4.0		36.0	60.0				4.0	96.0	12.0	20.0	12.0	56.0
210. Use sterilization color indicators to test sterilizer.	22.9	50.0	4.2	6.3	16.7		11.8	20.6	67.6				14.7	85.3	15.6	15.6	12.5	56.3
211. Handle and store sterilized material to prevent contamination.	20.4	38.8	6.1	6.1	38.6	5.6		5.6	88.9				8.3	91.7	25.0	16.7	19.4	38.9
212. Assist physician during EKG test.	30.6	38.8	4.1	4.1	22.4	3.4		10.3	86.2					100.0	31.0	20.7	24.1	24.1
213. Mount EKG graph on card.	35.6	51.1	4.4	4.4	4.4	4.2			95.8					100.0	50.0	16.7	16.7	16.7
214. Operate EKG machine.	28.9	55.6	6.7	4.4	4.4	3.6			96.4				21.4	78.6	39.3	17.9	17.9	25.0
215. Prepare a tray for routine or special procedures.	12.2	32.7	8.2	6.1	40.8	7.5	2.5	7.5	82.5				5.0	95.0	37.5	12.5	22.5	27.5
216. Review and confirm doctor's orders to administer an injection.	6.1	26.5	4.1	2.0	61.2			7.0	93.0				4.9	95.1	4.7	18.6	37.2	39.5

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
217. Describe the nature of a patient's illness or injury.	12.2	44.9	2.0	6.1	34.7			2.5	95.0				5.3	94.7	5.3	7.9	28.9	57.9
218. Give tests for color blindness.	44.2	23.1	3.8	5.8	23.1	4.2	4.2	8.3	83.3				25.0	75.0	8.3	4.2	29.2	58.3
219. Administer heat, electrotherapy, light, and ultrasonic treatment.	28.6	46.9		6.1	18.4			15.6	84.4				13.3	86.7	13.3	26.7	10.0	50.0
220. Assist physician in performing visual or hearing acuity tests.	27.8	24.1	3.6	9.3	35.2	8.6	11.4	5.7	74.3			5.7	8.6	85.7	20.0	20.0	25.7	34.3
221. Assist physician in performing a cervical cauterization.	23.9	32.6	4.3	8.7	30.4	3.2	16.1	12.9	67.7				12.9	87.1	25.8	16.1	25.8	32.3
222. Assist physician in application of cast.	25.0	22.9	6.3	6.3	39.6	11.8	2.9	23.5	61.8				20.6	79.4	47.1	23.5	17.6	11.8
223. Streak plates.	47.8	45.7		4.3	2.2	5.0		10.0	85.0				25.0	75.0	5.0	15.0	15.0	65.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
224. Examine specimens macroscopically.	47.8	45.7		6.5				10.0	90.0				15.0	85.0	5.0	5.0	20.0	70.0
225. Examine specimens microscopically.	34.8	54.3		8.7	2.2		3.8		96.2				7.7	92.3	19.2	11.5	19.2	50.0
226. Perform infectious mononucleosis procedures monospot or monotest.	37.0	56.5		6.5		21.7		8.7	69.6				4.3	95.7	8.7	13.0	21.7	56.5
227. Perform bleeding time procedures.	34.8	58.7		6.5		4.3		8.7	87.0					100.0	8.7	13.0	21.7	56.5
228. Perform differential cell counts.	37.0	56.5		6.5				4.3	95.7				4.3	95.7	8.7	13.0	21.7	56.5
229. Perform hemoglobin tests.	30.4	58.7		6.5	4.3			3.8	96.2				3.8	96.2	15.4	11.5	19.2	53.8
230. Perform acetone or ketone tests.	17.8	53.3	4.4	8.9	15.6			6.5	93.5				3.2	96.8	12.9	25.8	25.8	35.5
231. Perform bilirubin tests.	37.8	55.6		6.7		4.5		4.5	90.9					100.0	4.5	13.6	22.7	59.1
232. Perform ph tests.	35.6	55.2		6.7	2.2			4.2	95.8				8.3	91.7	8.3	12.5	25.0	54.2
233. Perform pregnancy tests.	37.8	56.7		6.7	8.9	9.1		9.1	81.8			4.8		95.2	4.5	13.6	27.3	54.5
234. Perform specific gravity tests.	21.7	63.0	2.2	8.7	4.3			10.0	90.0				20.0	80.0	13.3	10.0	26.7	50.0

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
235. Perform total cholesterol tests.	34.1	56.8		4.5	4.5	4.3		13.0	82.6				13.0	87.0	8.7	13.0	21.7	56.5
236. Perform glucose tolerance tests.	35.6	55.6		4.4	4.4	4.3		21.7	73.9			4.3		95.7	4.3	13.0	26.1	56.5
237. Centrifuge and separate serum from clot.	32.6	58.6		6.5	2.2			8.0	92.0				16.0	84.0	8.0	12.0	24.0	56.0
238. Provide activities which develop self-expression or interpersonal relationships.	41.7	45.8			12.5		4.2	25.0	70.8				12.5	87.5	16.7	16.7	12.5	54.2
239. Provide activities to optimize strength, endurance, range of motion, and coordination.	35.4	41.7	6.3		16.7		3.4	3.4	03.1					100.0	13.8	17.2	10.3	58.6
240. Modify, adjust, or fabricate body supports or controls, as needed and as directed.	44.9	32.7	4.1		18.4	4.0	16.0	4.0	76.0					100.0	12.0	12.0	12.0	64.0
241. Check for proper fit on splints, body supports, and controls by observing white and red pressure spots.	34.7	40.8	4.1		20.4	3.8	3.8	3.8	88.5				3.8	96.2	11.5	23.1	19.2	46.2

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
242. Assist in evaluation of client's work habits, tolerance level, and work skills.	38.8	44.9			16.3		7.7	7.7	84.6			3.8	3.8	92.3	3.8	7.7	11.5	76.9
243. Recommend other therapies to client as needs arise.	55.1	30.6	2.0	2.0	10.2	20.0	5.0		75.0			5.0		95.0	10.0		10.0	80.0
244. Review patient's clinical history.	32.7	49.0		6.1	12.2			3.2	96.8				9.7	90.3	6.5		25.8	67.7
245. Take X-rays (dental, abdominal, spinal, chest, etc.).	37.0	52.2	2.2	4.3	5.3			4.0	96.0				4.0	96.0	12.0	20.0	24.0	44.0
246. Administer oxygen by mask, tent, nasal devices or incubator.	12.0	36.0	6.0	4.0	42.0	15.9	2.3	11.4	70.5				9.1	90.9	15.9	22.7	20.5	40.9
247. Perform artificial respiration.	19.6	25.5	7.8	2.0	45.1	20.0	10.0	12.5	57.5					100.0	17.1	19.5	22.0	41.5
248. Give tracheotomy care.	22.4	26.5	4.1		56.9	28.9	7.9		63.2				2.6	97.4	7.9	21.1	26.3	44.7
249. Connect patient to monitor.	22.4	38.8	6.1	2.0	30.6	21.1		2.6	76.3				7.9	92.1	21.1	13.2	23.7	42.1
250. Mix and measure drug doses.	18.4	22.4	4.1	4.1	51.0	10.0			90.0				2.5	97.5	5.0	17.5	27.5	50.0
251. Recognize expected reactions to treatment.	10.2	26.5	6.1	4.1	53.1	7.0			93.0				2.3	97.7	7.0	23.3	30.2	39.5
252. Recognize complications or adverse reactions to treatments.	12.0	34.0	8.0	2.0	44.0	6.8			93.2				2.3	97.7	11.4	25.0	25.0	38.6

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.

Use Frequency.... I Infrequently (less than monthly) M Monthly W Weekly D Daily

Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance

Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
253. Minimize hazards throughout the health care facility.	21.8	45.5	9.1	1.8	21.8	7.3	4.9	2.4	85.4				7.3	92.7	29.3	12.2	22.0	36.6
254. Arrange equipment for convenient and safe use.	9.3	37.0	11.1	5.6	37.0	6.4			93.6		2.1		12.8	85.1	23.4	19.1	27.7	29.8
255. Record patient's height and weight.	5.7	15.1	45.3	3.8	30.2	6.0	2.0	6.0	86.0		4.0		14.0	82.0	52.0	8.0	22.0	18.0
256. Utilize procedures to prevent dissemination of bacteria when making beds.	18.4	16.3	38.8	4.1	22.4	5.1			94.9				5.1	94.9	59.0	17.9	7.7	15.4
257. Take and record blood pressure.	1.9	13.5	48.1	5.8	30.8	3.9		2.0	94.1				9.8	90.2	49.0	15.7	13.7	21.6
258. Operate and adjust examining tables.	12.0	18.0	20.0	6.0	44.0	4.8		7.1	88.1				14.3	85.7	40.5	23.8	16.7	19.0
259. Instill solutions into eye, ear, or nose.	12.5	18.8	4.2	4.2	60.4	7.1		4.8	88.1				7.1	92.9	9.5	23.8	26.2	40.5

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
260. Prepare medications.	10.4	18.8	4.2		66.7	4.7			95.3				2.3	97.7	2.3	23.3	25.6	48.8
261. Read cardiac monitors.	35.4	41.7	4.2	2.1	16.7	6.9		3.4	89.7				3.4	96.6	13.8	13.8	20.7	51.7
262. Drape patient for examination or treatment.	12.2	14.3	24.5	2.0	46.9	14.0			86.0				16.3	83.7	27.9	27.9	23.3	20.9
263. Understand cause and prevention of decubitt.	20.0	20.0	18.0		42.0	10.8		2.7	86.5			2.7	2.7	94.6	27.0	16.2	27.0	29.7
264. Have an understanding of fire prevention and control.	10.0	32.0	24.0	2.0	32.0	2.3	9.3	2.3	86.0			9.3	2.3	88.4	36.6	17.1	14.6	31.7
265. Introduce patient to activities appropriate to his or her capabilities.	28.6	53.1		2.0	16.3	9.1	6.1	18.2	66.7			6.1		92.9	15.2	9.1	12.1	63.6
266. Help patient make contacts with various agencies within the community.	31.3	62.5	4.2		2.1	6.9	10.3	20.7	62.1			3.4	6.9	89.7	17.2	6.9	6.9	69.0
267. Guide patient in use of prosthetic devices.	33.3	47.9	4.2	2.1	12.5	22.2		3.7	74.1			3.7		96.3	14.8	11.1	14.8	59.3
268. Help patient develop written and oral communication skills.	37.5	43.8	4.2		14.6	7.7	19.2		73.1			3.8	7.7	88.5	23.1	15.4	7.7	52.8
269. Instruct patient about available self-help devices.	33.3	48.3	2.1	2.1	4.2	32.4	3.6	14.3	60.7			7.1		92.9	21.4	3.6	3.6	71.4
270. Set up and regulate oxygen equipment.	18.4	34.7	10.2		36.7	7.5	12.5	2.5	77.5		2.5	5.0	5.0	87.5	10.0	12.5	22.5	55.0

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
271. Check patients with respiratory problems for open airways.	16.0	38.0	10.0	2.0	34.0	19.0	7.1		73.8		2.4		2.4	95.2	14.3	11.9	21.4	52.4
272. Report immediately deviations of patient's vital signs from the normal.	15.7	19.6	23.5	2.0	39.2	9.3			90.7					100.0	30.2	20.9	20.9	27.9
273. Set up and regulate humidifier.	20.0	28.0	16.0		36.0	8.3		19.4	72.2				13.9	86.1	22.2	22.2	25.0	30.6
274. Follow procedures in care of isolated patients.	22.0	14.0	38.0	4.0	32.0	10.3	5.1	2.6	82.1				2.6	97.4	38.5	23.1	17.9	20.5
275. Instruct patient with regard to collection of specimen (e.g., fecal, urine, eye, nose, or throat).	12.0	24.0	38.0	2.0	34.0	9.5	4.8	83.3	2.4		2.4	4.8	7.1	85.7	33.3	16.7	26.2	23.8
276. Prepare, instruct, and assist patient during EKG test.	28.9	44.4	6.7	4.4	15.6	3.3			96.7		6.7		6.7	86.7	23.3	30.0	10.0	36.7
277. Give instructions to patient regarding medication.	18.4	22.4	2.0		57.1	5.0	5.0		90.0		5.0		7.5	87.5	5.0	20.0	25.0	50.0

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
278. Persuade and motivate patients to participate in therapy sessions.	34.7	40.8	6.1	2.0	16.3				6.5	93.5			3.2		3.2	93.5		16.1		22.6	61.3
279. Direct patient to project completion by praise and encouragement.	23.5	39.2	5.9	2.0	29.4		5.4		5.4	89.2			2.7		8.1	89.2		10.8	24.3	18.9	45.9
280. Teach patient to perform activity by instructing and demonstrating.	26.0	40.0	4.0		30.0				11.4	88.6			2.9		5.7	91.4		8.6	20.0	22.9	48.6
281. Adapt teaching techniques to capabilities of patient.	32.0	48.0	2.0	2.0	16.0				12.5	87.5			3.1		6.3	90.6		12.5	3.1	15.6	68.8
282. Cut and remove sutures postoperatively.	40.8	36.7	6.1	2.0	14.3		7.1	3.6	3.6	85.7			3.6		14.3	82.1		3.6		21.4	75.0
283. Evaluate dietary habits and instruct patient on proper nutrition.	30.6	51.0	2.0		16.3			3.0	9.1	87.9			3.0	3.0		93.9		6.1	9.1	15.2	69.7
284. Suction patient's nose and throat passage.	20.4	18.4	10.2	2.0	49.0		10.5	2.6	2.6	84.2				2.6	5.3	92.1		10.5	23.7	26.3	39.5
285. Do pre-operative shaving.	32.7	16.3	28.6	2.0	20.4		6.1			93.9				3.0	3.0	93.9		45.5	12.1	15.2	27.3
286. Administer medications or isotopes to patients by injection or orally.	28.6	24.5	6.1	2.0	38.8			8.8		91.2					2.9	96.1		8.8	17.6	17.6	55.9
287. Perform superficial or specialized examination of patients.	30.4	54.3		4.3	10.9		3.2		9.7	87.1					9.6	90.3		6.5		6.5	87.1
288. Abstract simple data from patient's chart.	18.4	55.1		2.0	24.5		5.4		16.2	78.4					13.5	86.5		10.8	13.5	13.5	62.2

OCCUPATIONAL ANALYSIS: Nursing Services

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Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
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Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
289. Prep patient using correct procedures and solutions.	28.6	12.2	26.5		32.7	2.9			97.1				5.7	94.3	31.4	5.7	22.9	40.0
290. Prepare patient for skeletal traction.	31.3	22.9	10.4	2.1	33.3	18.2	3.0	6.1	72.7			3.0		97.0	18.2	9.1	18.2	54.5
291. Teach patients how to use crutches, walkers, etc.	22.2	38.9	13.0	1.9	24.1	10.5		10.5	78.9				13.2	86.8	21.1	18.4	7.9	52.6
292. Assist patients with vocational or family counseling.	49.0	44.9			6.1	8.7			91.3			4.3		95.7	4.3		8.7	87.0
293. Give whirlpool treatments.	49.0	49.0			2.0			13.0	87.0			4.3	8.7	87.0	13.0	21.7	8.7	57.5
294. Teach patients exercise programs.	30.0	56.0	2.0	2.0	10.0			19.4	80.6			3.2	6.5	90.3	16.1	25.8	16.1	41.9
295. Assist with the administration of local anesthetics.	15.1	20.8	5.7	7.5	50.9	8.9		15.6	75.6				8.9	91.1	6.7	11.1	26.7	55.6

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
296. Dispense medications when ordered by health professional.	16.7	22.9	2.1	6.3	52.1	10.0		5.0	82.5				7.7	92.3	7.5	20.0	27.5	45.0
297. Deliver or remove equipment and supplies from contaminated room.	24.0	20.0	32.0	4.0	20.0	10.5		7.9	81.6			2.6	10.5	86.8	52.6	18.4	10.5	18.4
298. Dispose of contaminated materials and equipment.	32.7	26.5	20.4	2.0	18.4	12.1	3.0	6.1	78.8			3.0	9.1	87.9	54.5	21.2	6.1	18.2
299. Change soiled linen and clothes.	16.0	20.0	40.0		24.0	4.8		4.8	90.5			2.4	7.1	90.5	64.3	14.3	9.5	11.9
300. Clean patient unit furniture.	20.4	27.8	25.9	3.7	22.2	4.8		4.8	90.5			2.4	4.8	92.9	59.5	9.5	11.9	19.0
301. Clean and maintain service area and equipment, within area of responsibility.	20.0	28.0	32.0	4.0	16.0	2.5	2.5	5.0	90.0			2.5	7.5	90.0	72.5	7.5	10.0	10.0
302. Order or inventory and store equipment and supplies.	30.6	51.0	4.1	4.1	10.2	6.1	21.2	69.7	3.0			3.0	15.2	81.8	63.6	6.1	9.1	32.2
303. Verify performance of instruments and devices against manufacturer's specifications.	46.9	51.0	2.0			20.8	12.5	4.2	62.5			4.2	16.7	79.2	29.2	4.2	12.5	54.2
304. Determine if equipment needs repair.	26.0	68.0	2.0		4.0	14.7	5.9	8.8	70.6			2.9	17.6	79.4	23.5	8.8	29.4	38.2
305. Schedule or perform maintenance on equipment.	37.5	58.3		4.2		7.4	22.2	3.7	66.7			3.7	14.8	81.5	40.7	7.4	22.2	29.6
306. Clean, sharpen, and maintain instruments or equipment as required.	34.7	53.1	2.0	4.1	6.1	3.4	10.3		86.2			3.4	20.7	75.9	37.9	6.9	24.1	31.0

OCCUPATIONAL ANALYSIS: Nursing Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Nursing Assistant 4 Medical Assistant 5 L.V.N.
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
307. Prepare instruments for sterilization (chemical, autoclaving, or dry heat).	24.5	24.5	17.0	5.7	28.3			5.0	92.5				5.0	95.0	30.0	12.5	22.5	35.0
308. Establish and maintain chain of antisepsis.	18.9	34.0	11.3	5.7	30.2		2.4	95.1	2.4			4.9	4.9	90.2	22.0	9.8	24.4	43.9
309. Test sterilizer with sterilization color indicators.	22.4	38.8	6.1	6.1	26.5	2.8	2.8	19.4	75.0				11.8	88.2	38.9	22.2	19.4	19.4
310. Sterilize instruments by chemical, autoclaving, or dry heat procedures.	25.5	31.9	14.0	4.3	23.4			9.1	90.0				18.2	81.8	45.5	18.2	15.2	21.2
311. Inspect all areas and rooms for proper housekeeping, temperature, and adequate supplies.	17.6	49.0	0.8	3.9	19.6		2.5	5.0	02.5				17.5	82.5	27.5	17.5	25.0	30.0
312. Clean aspiration equipment.	26.0	28.0	26.0	2.0	18.0	2.9	2.9	2.9	91.4				14.3	85.7	62.9	22.9	8.6	5.7
313. Clean and maintain EKG equipment after test.	37.8	37.8	8.9	6.7	8.9	4.2		8.3	87.5			4.2	4.2	91.7	58.3	20.8	4.2	16.7

	1	2	3	4	5		I	M	W	D		1	2	3	4	5		a	b	c	d
314. Clean sterilizing equipment.	24.5	32.7	14.3	4.1	24.5		5.7	2.9	14.3	77.1				2.9	22.9	74.3		42.9	22.9	17.1	17.1
315. Store or dispose of used blood containers and pilot tubes.	32.6	50.0	2.2	8.6	6.5		4.0		12.0	84.0				8.0	4.0	88.0		52.0	12.0	12.0	24.0
316. Check invoices against purchase orders.	22.4	57.1	6.1	8.2	6.1		3.0	6.1	18.2	72.7			3.0	3.0	15.2	78.8		60.6	12.1	12.1	15.2
317. Organize storage areas for equipment, supplies and drugs.	22.4	46.9	6.1	8.2	16.3		8.8	2.9	29.4	58.8		2.9		5.9	11.8	79.4		61.8	14.7	11.8	11.8
318. Inventory equipment and supplies.	24.5	55.1	6.1	6.1	8.2		6.3	18.8	6.3	68.8				3.1	6.3	90.6		68.8	3.1	9.4	18.8
319. Sort requisitions and charge slips.	24.5	57.1	2.0	6.1	10.2		3.1	6.3	3.1	87.5				3.1	9.4	87.5		75.0	12.5	3.1	9.4
320. Follow procedures for control and security of medical supplies, drugs, and equipment.	12.2	36.7	4.1	6.1	40.8		2.6	7.7	2.6	87.2					7.9	92.1		36.8	21.1	18.4	23.7
321. Other Competencies (List Below)																					

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
1. Seek guidance to improve performance in patient care.	13.6	20.3	5.1	49.2	11.9	18.8	18.8	8.3	54.2				26.7	73.3	23.3	7.0	14.0	53.5
2. Participate in or conduct demonstrations of procedures and equipment (conduct in-service).	19.0	23.8		50.8	6.3	32.0	42.0	18.0	8.0		2.0	6.0	34.0	58.0	14.6	2.1	27.1	56.3
3. Orient new personnel to unit facilities, routines, and other personnel.	6.5	30.6	6.5	48.4	8.1	64.8	18.5	3.7	13.0	1.9	3.7	3.7	29.6	61.1	27.5	9.8	21.6	41.2
4. Advise health professionals on the technicalities and procedures involved in operating special equipment.	16.4	24.6		50.8	8.2	34.7	24.5	18.4	22.4			4.3	37.0	58.7	6.7	8.9	15.5	66.7
5. Practice established routines and policies of the health care facility.	6.7	15.0	15.0	55.0	8.3	5.9	2.0	90.2	2.0			2.0	9.8	88.2	31.4	9.8	17.6	39.2
6. Give "on-the-job" instruction.	12.9	21.0	6.5	53.2	6.5	27.5	2.0	9.8	58.8				24.0	76.0	14.3	6.1	14.3	65.3
7. Develop criteria for the selection of records for review and retention.	19.4	19.4	4.8	41.9	14.5	23.8	21.4	16.7	38.1	2.5	5.0	5.0	17.5	70.0	2.6	10.3	23.1	64.1

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
8. Develop job description.	14.1	31.3	1.6	43.8	9.4	75.0	12.5	2.1	10.4	4.2		4.2	35.4	56.3	4.2	6.3	12.5	77.1
9. Interview, evaluate, or hire prospective personnel.	18.8	26.6		42.2	12.5	77.3	11.4	6.8	4.5	2.3		4.7	11.6	81.4	4.7	2.3	14.0	76.7
10. Insure that all subordinates are on duty.	14.5	24.8		46.8	12.9	14.3		2.4	83.3		2.4	4.9	9.8	82.9	17.1	4.9	19.5	56.1
11. Attend and participate in staff meetings.	16.1	24.8	3.2	41.9	12.9	16.7	47.6	23.8	9.5			2.5	32.5	65.0	15.0	10.0	15.0	60.0
12. Provide liaison between doctor and other professional associates.	15.6	31.3		42.2	10.9	10.6	4.3	12.8	72.3				26.1	73.9	4.4	4.4	20.0	71.1
13. Teach safety techniques as needed.	14.1	28.1		54.7	3.1	51.9	23.1	11.5	13.5		7.7		11.5	80.8	30.8	5.8	21.2	42.3
14. Inform personnel of potential hazards in their working areas.	20.0	28.3		46.7	5.0	35.6	17.8	15.6	31.1				15.6	84.4	24.4	4.4	24.4	46.7
15. Assist in the orientation of volunteers, students, and new staff.	19.0	20.6	1.6	46.0	12.7	48.8	18.6	14.0	18.6	2.3	2.3	11.6	32.6	51.2	20.9	18.6	23.3	37.2
16. Recommend materials to be used in training volunteers.	33.3	12.7	3.2	27.0	23.8	60.0	8.0	16.0	16.0			20.8	37.5	41.7	12.0	16.0	24.0	48.0
17. Participate in public relations activities as directed.	25.4	19.0	6.3	31.7	17.5	63.9		11.1	25.0		5.7	11.4	37.1	45.7	22.2	11.1	19.4	47.2
18. Obtain information from patient or family.	21.9	20.3	14.1	29.7	14.1	28.9		13.2	57.9		2.7	10.8	32.4	54.1	36.8	15.8	28.9	18.4

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Response	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
Key	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

	Competency Statement	Performance					Use Frequency				Importance					Training			
		1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
19.	Receive patients, explain tests and procedures to them, and allay their fears.	10.9	10.9	28.1	39.1	10.9	8.0		12.0	80.0			2.0	16.0	82.0	46.9	6.1	18.4	28.6
20.	Attend to patient's comfort before, during, and after examination, tests, or treatment.	17.2	15.6	23.4	35.9	7.8	4.1	2.0	4.1	89.8			2.0	22.4	75.5	45.8	6.3	22.9	25.0
21.	Assist in establishing a comfortable relationship between the patient and the health care professional.	17.2	21.9	18.8	32.8	9.4	4.3		6.4	89.4		2.1	2.1	19.1	76.6	32.6	2.2	32.6	32.6
22.	Interpret patient's signs, symptoms, and behaviors.	34.4	14.1	6.3	23.4	21.9	20.7	3.4		75.9			6.9	13.8	79.3	25.0	14.3	10.7	50.0
23.	Observe patient's general physical condition, appearance, and behavior.	31.3	12.5	7.8	26.6	21.9	16.1			83.9				32.3	67.7	26.7	6.7	13.3	53.3
24.	Record and chart vital signs and/or other conditions as directed by the health care professional.	51.6	17.2		7.8	23.4	17.6	5.9		76.5		5.9	5.9	11.8	76.5	23.5	23.5	17.6	35.3
25.	Obtain charts of patients for whom information is requested.	40.6	15.6	9.4	15.6	18.8	25.0	12.5		62.5	4.2		12.5	16.7	66.7	37.5	12.5	25.0	25.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
26. Handle telephone calls.	3.1	32.8	35.9	26.6	1.6				100.0			1.7	32.2	66.1	69.5	8.5	10.2	11.9
27. Mount, label, and file radiographs.	48.4	12.5	4.7	9.4	25.0				100.0				42.9	57.1	21.4	7.1	35.7	35.7
28. Apply restraints.	59.4	3.1		3.1	34.4	40.0	20.0		40.0			40.0	20.0	40.0	40.0	20.0	20.0	20.0
29. Open sterile packages and packs.	34.4	10.9	10.9	23.4	20.3	14.8		22.2	59.3	3.7	3.7		22.2	70.4	40.7	11.1	22.2	25.9
30. Assist with or apply T, straight, Scultetus', breast, and triangular (sling) binders.	59.4	3.1		1.6	35.9	25.0		25.0	50.0			35.0	50.0	25.0	25.0	25.0	25.0	25.0
31. Calibrate isotopes against a standard.	50.0	6.3	1.6	15.6	26.6	18.8		56.3	25.0				12.5	87.5	6.3	12.5	12.4	68.8
32. Know the function of special beds and frames, and be able to apply this knowledge.	62.5	3.1	1.6	1.6	31.3	20.0			80.0	20.0				80.0	40.0	40.0		20.0
33. Prepare statistical reports.	17.2	23.4	4.7	43.8	10.9	8.9	55.6	17.8	17.8	2.2		4.3	30.4	63.0	8.7	8.7	21.7	60.9
34. Receive and preserve biopsy specimens.	22.2	15.9	14.3	31.7	15.9	14.3	5.7	20.0	60.0			8.3	19.4	72.2	30.6	13.9	24.0	30.6
35. Load and unload film units.	50.0	9.4	1.6	23.5	26.6		7.1		92.9	7.1			38.6	64.3	21.4	7.1	21.4	50.0
36. Prepare contrast media, such as barium sulphate.	54.7	6.3	1.6	7.8	29.7			33.3	66.7				11.1	88.9	33.3	11.1	22.2	33.3

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)

Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily

Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance

Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
37. Take X-rays (dental, abdominal, spinal, chest, etc.)	50.0	6.3	3.1	15.6	25.0				100.0				7.1	92.9	21.4	14.3	14.3	50.0
38. Operate image intensifier fluoroscope units.	57.8	3.1		4.7	34.4			20.0	80.0					100.0	20.0	40.0	20.0	20.0
39. Assist with X-rays for cholecystographic studies.	51.6	4.7	4.7	10.9	28.1	9.1		27.3	63.6			9.1	9.1	81.8	27.3	27.3	9.1	36.4
40. Assist with X-rays of small intestine and pelvimetric studies.	52.4	4.8	3.2	7.9	31.7			25.0	75.0				12.5	87.5	37.5	25.0	25.0	12.5
41. Read cardiac monitors.	59.4	3.1		3.1	34.4				100.0					100.0		50.0	25.0	25.0
42. Have an understanding of fire prevention and control.	3.1	26.6	29.7	37.5	3.1	24.6	8.8	5.3	61.4		3.4	5.2	15.5	75.9	49.1	12.3	12.3	26.3
43. Report immediately, deviations of patients' vital signs from the normal.	45.2	9.7	6.5	12.9	25.8	6.3			93.8				12.5	87.5	25.0	31.3	6.3	37.5

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
44. Direct patient to project completion by praise and encouragement.	36.1	11.5	11.5	13.1	27.9	5.3			94.7			5.0	30.0	65.0	40.0	30.0	15.0	15.0
45. Dispose of contaminated materials and equipment.	7.9	22.2	20.6	49.2		1.9	1.9	16.7	79.6				12.7	87.3	41.5	15.1	15.1	28.3
46. Clean and maintain service area and equipment within area of responsibility.	1.6	15.6	35.9	43.8	3.1	1.8		8.8	89.5		1.8	1.8	22.8	73.7	53.6	17.9	12.5	16.1
47. Clean and polish removable appliances.	18.8	18.8	23.4	23.4	15.6		5.1	15.4	79.5		5.1	5.1	41.0	48.7	43.2	21.6	16.2	18.9
48. Check and record temperature of appliances and equipment.	3.1	17.2	28.1	50.0	1.6			5.2	94.8				29.3	70.7	40.0	9.1	18.2	32.7
49. Follow procedures for control and security of medical supplies, drugs, and equipment.	25.4	17.5	9.5	38.1	9.5	5.0		10.0	85.0		2.5	2.5	7.5	87.5	35.0	5.0	15.0	45.0
50. Assist in research assignments.	40.6	10.9	1.6	17.2	29.7	47.1		5.9	47.1		16.7	27.8	11.1	44.4	5.6	27.8	27.8	38.9
51. Charge or code charge work done.	10.9	26.6	29.7	20.3	12.5	2.2		2.2	95.6			4.4	28.9	66.7	55.6	13.3	15.6	15.6
52. Clean area and equipment aseptically.	4.7	18.8	43.8	32.8		3.4	1.7	12.1	82.8			1.7	29.3	69.0	53.4	12.1	19.0	15.5
53. Collect blood specimens from the patients.	1.6	12.5	50.0	34.4	1.6	1.7		3.3	95.0				3.4	96.6	50.8	16.9	16.9	15.3
54. Collect fecal or urine specimens from the patients.	31.3	25.0	18.8	17.2	7.8			2.9	97.1				5.7	94.3	41.2	20.6	17.6	20.6

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
55. Inventory and order supplies.	3.1	34.4	9.4	51.6	1.6		10.5	52.6	36.8			3.4	25.4	71.2	37.3	8.5	18.6	35.6
56. Perform electrocardiogram (EKG) tests.	39.1	7.8	15.6	14.1	23.4	9.1		13.6	77.3		4.5		27.3	68.2	50.0	18.2	18.2	13.6
57. Perform preventive maintenance on laboratory equipment.	1.6	25.0	9.4	64.1		3.3	11.7	20.0	65.0				11.5	88.5	13.1	11.5	29.5	45.9
58. Perform sperm counts.	10.9	17.2	9.4	56.3	6.3	54.0	6.0	10.0	30.0		3.9	2.0	39.2	54.9	15.7	11.8	25.5	45.1
59. Prepare and process specimens.	1.6	9.7	38.7	50.0			1.7	1.7	96.6			1.7	13.6	84.7	32.2	15.3	27.1	25.4
60. Prepare reagents.	3.1	18.8	15.6	59.4	3.1	12.5	7.1	16.1	64.3				26.3	73.7	24.6	5.3	29.8	40.4
61. Prepare specimens for shipment.		26.6	29.7	40.6	3.1	10.3		3.4	86.2			3.4	28.8	67.8	47.5	10.2	20.3	22.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
62. Prepare specimens for training or reference.	25.0	23.4	7.8	32.8	10.9	28.2	23.1	20.5	28.2				28.9	71.1	21.1	5.3	15.8	57.9
63. Prepare standards.	7.8	20.3	14.1	53.1	4.7	9.3	13.0	11.1	66.7				18.5	81.5	18.5	9.3	24.1	48.1
64. Operate automatic (continuous flow--dual channel) analyzers.	31.3	17.2	7.8	37.5	6.3	10.5			89.5				16.2	83.8	15.8	13.2	31.6	39.5
65. Operate automatic (Coulter--single channel) cell counter.	21.3	8.2	19.7	44.3	6.6	4.7			95.3				21.4	78.6	16.3	18.2	37.2	27.9
66. Operate analytical balance weighing to nearest 0.1 milligram or less.	34.4	17.2	6.3	29.7	12.5	38.2	5.9	14.7	41.2			3.0	30.3	66.7	17.6	14.7	14.7	52.9
67. Operate blood gas apparatus.	40.6	9.4	4.7	25.0	20.3	4.3	4.3	13.0	78.3				8.7	91.3		13.0	43.5	43.5
68. Operate chloridometer.	39.1	1.6	12.5	21.9	24.0			4.3	95.7				9.1	90.9	8.7	8.7	34.8	47.8
69. Operate colorimeter.	14.1	12.5	15.6	48.4	9.4			6.5	93.5				13.3	86.7	17.4	15.2	28.3	39.1
70. Operate differential cell counter.	25.0	10.9	17.2	37.5	9.4				100.0				12.8	87.2	12.5	7.5	32.5	47.5
71. Operate distillation apparatus.	43.5	9.7	3.2	12.9	30.6	6.3		6.3	87.5				6.7	93.3	31.3	6.3	43.8	18.8
72. Operate electrocardiograph.	37.5	12.5	12.5	10.9	26.6	9.5		9.5	81.0			4.8	19.0	76.2	38.1	33.3	19.0	9.5

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
73. Operate regular flame photometer.	14.1	12.5	15.6	50.0	7.8			2.1	97.9				14.6	85.4	14.6	16.7	33.3	35.4
74. Operate hemoglobinometer.	17.2	14.1	18.8	42.2	7.8	8.7	2.2	4.3	84.8				19.6	80.4	18.2	18.2	27.3	36.4
75. Operate microhematocrit reader.	12.5	17.2	21.9	45.3	3.1	13.2	1.9	3.8	81.1				20.8	79.2	28.3	22.6	18.9	30.2
76. Operate pH meter.	31.3	9.4	7.8	29.7	21.9	6.5	3.2	19.4	71.0			6.5	25.8	67.7	25.8	22.6	12.9	38.7
77. Operate visible range or ultraviolet spectrophotometer.	23.4	9.4	10.9	43.8	12.5	2.6		5.1	92.3				17.9	82.1	7.7	10.3	35.9	46.2
78. Use blood bank refrigerator.	18.8	15.6	9.4	45.3	10.9			7.0	93.0				19.0	81.0	11.9	16.7	21.4	50.0
79. Use general laboratory centrifuge.	1.6	19.0	41.3	38.1				1.7	98.3		1.7	6.7	23.3	68.3	46.7	13.3	20.0	20.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
80. Use microhematocrit centrifuge.	10.9	17.2	32.8	37.5	1.6	11.1	1.9	3.7	83.3			1.9	24.9	72.2	29.6	22.2	18.5	29.6
81. Use separatory funnel extraction apparatus.	50.0	9.4	1.6	7.8	31.3	25.0		16.7	58.3				8.3	91.7	24.0	16.7	41.7	16.7
82. Use heating blocks.	9.4	9.4	25.0	45.3	10.9			6.1	93.9		2.0	12.2	22.4	63.3	20.4	22.4	26.5	30.6
83. Use aerobic incubator.	9.5	14.3	15.9	55.6	4.8	1.9	1.9		96.2			7.7	13.5	78.8	13.5	11.5	32.7	42.3
84. Use anaerobic incubator.	28.1	12.5	6.3	42.2	10.9		2.6		97.4			2.6	10.5	86.8	10.5	13.2	28.9	47.4
85. Use microscopes.		14.1	23.4	62.5					100.0			1.6	8.1	90.3	17.7	16.1	32.3	33.9
86. Use automatic or semiautomatic pipette.	7.8	10.9	23.4	54.7	3.1	1.8			98.2		1.8	3.6	12.7	81.8	21.8	23.6	23.6	30.9
87. Use manual pipette.	1.6	11.1	23.8	63.5				1.7	98.3				15.5	84.5	20.7	24.9	22.4	31.0
88. Use macro (0.1 mil. or larger) pipette.	4.7	10.9	25.0	59.4					100.0				15.3	84.7	20.3	23.7	22.0	33.9
89. Use micro (less than 0.1 mil.) pipette.	1.6	10.9	25.0	59.4	3.1				98.3				16.9	83.1	18.6	23.7	22.0	35.6
90. Use autoclave sterilizer.	32.8	15.6	15.6	26.6	9.4	8.3	2.8	13.9	75.0		2.8	2.8	22.2	72.2	32.4	18.9	16.2	32.4

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
91. Use Burette or visual end point titrators.	40.6	4.7	6.3	21.9	26.6	21.1	5.3	10.5	57.9				21.1	78.9	10.5	10.5	21.1	57.9
92. Use waterbaths.	9.4	14.1	25.0	48.4	3.1	3.8		9.4	84.9			3.8	18.9	77.4	35.8	13.2	22.6	28.3
93. Identify and classify pathogenic bacteria.	12.5	23.4	3.1	56.3	4.7	3.9	2.1	2.0	92.2				9.8	90.2	7.8	3.9	29.4	58.8
94. Inoculate tubed media.	14.5	16.1	16.1	48.4	4.8	8.3			87.5				25.0	75.0	25.0	18.8	16.7	39.6
95. Operate anaerobic devices.	25.0	17.2	12.5	35.9	9.4	5.0			92.5				20.0	80.0	17.5	12.5	22.5	47.5
96. Perform antibiotic and antimicrobial agent sensitivity tests.	14.1	21.9	10.9	48.4	4.7	4.0		2.0	92.0				18.0	82.0	12.0	8.0	24.0	56.0
97. Prepare culture media.	48.4	4.7	10.9	20.3	15.6	21.7		8.7	65.2			4.3	17.4	78.3	43.5	13.0	21.7	21.7

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
98. Prepare subculture and smears.	10.9	18.8	10.9	57.8	1.6	5.6		5.6	87.0				22.2	77.8	9.3	7.4	27.8	55.6
99. Receive and primary process all cultures except blood, T.B., and fungus.	15.6	7.8	12.5	48.4	15.6	2.3		2.3	93.2				22.7	77.3	25.0	13.6	25.0	36.4
100. Receive and process T.B. cultures.	39.7	6.3	6.3	31.7	15.9		7.4	7.4	85.2	3.6			17.9	78.6	14.3	14.3	21.4	50.0
101. Receive and process blood cultures.	18.8	20.3	6.3	46.9	7.8	11.1	6.7	2.2	77.8				17.8	82.2	8.9	11.1	22.2	57.8
102. Record or report colony counts on urine.	12.5	20.3	3.1	57.8	6.3	6.0	2.0	4.0	88.0				22.0	78.0	8.0	6.0	26.0	60.0
103. Stain bacteriological smears.	9.4	14.1	14.1	62.5		7.1		3.6	87.5				17.9	82.1	17.9	7.1	30.4	44.6
104. Streak plates.	10.9	12.5	21.9	53.1	1.6	5.6	1.9		90.7			1.9	20.4	77.8	31.5	11.1	22.2	35.2
105. Cultivate mycology specimens for primary isolation.	34.4	14.1	4.7	31.3	15.6	3.3		23.3	70.0				20.0	80.0	10.0	13.3	16.7	60.0
106. Examine mycology specimens microscopically.	26.6	17.2	1.6	40.6	14.1	5.6		27.8	66.7				22.2	77.8		5.7	17.1	77.1
107. Perform Kolt preparation for dermatophytes.	48.4	11.3		14.5	25.8	22.2		11.1	66.7	5.9			17.6	76.5		5.9	17.6	76.5
108. Stain mycology specimens.	32.8	14.1	1.6	34.4	17.2	6.7		26.7	66.7				23.3	76.7	10.0	6.7	20.0	63.3

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Use Frequency... I Infrequently (less than monthly) M Monthly W Weekly D Daily
Importance...... 1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
109. Examine specimens macroscopically.	6.3	9.5	11.1	66.7	6.3	1.9		7.7	90.4			5.8	15.4	78.8	9.6	15.4	19.2	55.8
110. Examine specimens microscopically.	4.8	17.5	9.5	63.5	4.8		1.9	7.4	90.7			1.9	11.1	87.0	7.4	7.4	27.8	57.4
111. Identify protozoans, cestodes, nematodes, and trematodes.	10.9	26.6	3.1	53.1	6.3	16.3	4.1	14.3	65.3				12.2	87.8	6.1	6.1	14.3	73.5
112. Identify parasitic and disease-carrying anthropods.	20.3	23.4	3.1	43.8	9.4	22.0	9.8	2.4	65.9				7.3	92.7	7.3	4.9	14.6	73.2
113. Perform concentration and flotation techniques.	15.6	23.4	6.3	46.9	7.8	15.2	4.3	19.6	60.9				13.0	87.0	6.5	8.7	21.7	63.0
114. Stain parasitological smears.	15.6	18.8	4.7	51.6	9.4	18.2	4.5	11.4	65.9				15.9	84.1	15.9	11.4	22.7	50.0
115. Perform antistreptolysin "O" titers.	21.9	12.5	10.9	48.4	6.3	13.6	2.3	9.1	75.0			2.3	22.7	75.0	6.8	11.4	34.1	47.7

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
116. Perform "C" reactive protein tests.	23.4	17.2	15.6	34.4	9.4	17.5	2.5	15.0	65.0			4.9	24.4	70.7	12.2	9.8	36.5	41.5
117. Perform febrile agglutination (e.g. salmonella) tests.	20.3	10.9	12.5	51.6	4.7	17.8	11.1	11.1	60.0			2.2	19.6	78.3	10.9	10.9	30.4	47.8
118. Perform heterophile presumptive test.	28.1	10.9	12.5	35.9	12.5	2.9		17.1	80.0				25.0	75.0	2.8	13.9	44.4	38.9
119. Perform infectious mononucleosis procedures, monospot, or monotest.	6.3	12.5	18.8	57.8	4.7	3.7	3.7	24.1	68.5				27.8	72.2	13.0	14.8	27.8	44.4
120. Perform latex fixation test.	16.1	16.1	16.1	46.8	4.8	10.4	2.1	20.8	66.7				29.2	70.8	12.5	8.3	39.6	39.6
121. Perform rheumatoid arthritis (RA) test.	7.8	15.6	18.8	53.1	4.7	7.5	9.4	20.8	62.3				30.2	69.8	11.3	9.4	37.7	41.5
122. Perform and read agglutination (e.g. cold agglutinations) tests.	15.6	17.2	7.8	51.6	7.8	23.4	10.6	6.4	59.6				28.3	71.7	4.3	8.5	31.9	55.3
123. Perform VDRL test.	12.5	18.8	15.6	46.9	6.3	8.2		14.3	77.6				16.3	83.7	20.4	8.2	28.6	42.9
124. Prepare antigens.	29.0	14.5	9.7	27.4	19.4	6.7		13.3	80.0			3.2	19.4	77.4	16.1	9.7	22.6	51.6
125. Perform bleeding time procedures.	4.7	17.2	18.8	54.7	4.7	23.2	1.8	19.6	55.4		1.8	3.6	23.6	70.9	20.9	7.3	27.3	34.5
126. Prepare and stain blood smears.	4.7	12.5	31.3	48.4	3.1	3.5		1.8	94.7			2.0	15.7	82.4	32.7	16.4	20.0	29.1

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Response	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
Key	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
127. Perform clot retraction test.	21.9	15.6	7.8	46.9	7.8	52.5		5.0	42.5		9.5	2.4	28.6	59.5	7.1	11.9	31.0	50.0
128. Perform venous whole blood coagulation time tests.	7.8	10.9	14.1	64.1	3.1	13.7	11.8	17.6	56.9		2.0	3.9	25.5	68.6	7.7	13.5	36.5	42.3
129. Perform differential cell counts.	4.8	12.7	20.6	60.3	1.6	3.6			96.4				10.7	89.3	12.5	7.1	39.3	41.1
130. Perform eosinophile count.	17.2	12.5	12.5	54.7	3.1	36.7	6.1	2.0	55.1		2.0	4.1	34.7	59.2	6.1	6.1	38.8	49.0
131. Perform erythrocyte fragility tests.	35.9	12.5	7.8	32.8	10.9	54.8	3.2		41.9			9.7	12.9	77.4	6.5	9.7	32.3	51.6
132. Calculate erythrocyte indices.	18.8	15.6	15.6	42.2	7.8	29.5	2.3	6.8	61.4			2.3	13.6	84.1	11.4	6.8	43.2	38.6
133. Perform fibrinogen deficiency test.	32.8	17.2	9.4	32.8	7.8	26.5		17.6	55.9			2.9	14.7	82.4	8.8	2.9	50.0	38.2

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
134. Perform hematocrit tests.	3.1	12.5	28.1	54.7	1.6	5.2			94.8				10.3	89.7	20.7	15.5	34.5	29.3
135. Perform hemoglobin tests.	3.1	15.6	25.0	53.1	3.1	7.9			93.0				8.8	91.2	17.9	12.5	35.7	33.9
136. Prepare lupus erythematosus (L.E.) slides.	18.8	17.2	12.5	43.8	7.8	51.2		11.6	37.2		4.5	2.3	9.1	84.1	9.3	11.6	25.6	53.5
137. Microscopically identify L.E. cells.	19.0	20.6	7.9	42.9	9.5	56.4		10.3	33.3		2.4		12.2	85.4	7.5	10.0	25.0	57.5
138. Stain and read malaria smears.	17.2	15.6	9.4	51.6	6.3	46.7	6.7	2.2	44.4			2.2	13.0	84.8	8.7	4.3	30.4	56.5
139. Identify morphological variations of red or white blood cells.	6.3	14.1	14.1	64.1	1.6	3.6		5.4	91.1				7.1	92.9	8.9	5.4	30.4	55.4
140. Perform partial thromboplastin time (PTT) test.	12.9	9.7	17.7	54.8	4.8	4.2	2.1	10.4	83.3				8.3	91.7	10.4	12.5	35.4	41.7
141. Perform platelet count.	6.3	10.9	20.3	56.3	6.3	13.2	3.8	5.7	77.4				11.3	88.7	11.3	7.5	43.4	37.7
142. Perform prothrombin time test.	12.5	9.4	15.6	57.8	4.7		5.9	3.9	90.2				9.8	90.2	9.8	11.8	37.3	41.2
143. Perform red blood cell count (RBC).	12.5	14.1	21.9	48.4	3.1	9.6		5.8	84.6			3.9	9.8	86.3	13.7	11.8	37.3	37.3
144. Perform reticulocyte cell count.	9.4	10.9	18.8	56.3	4.7	17.6	5.9	11.8	64.7			3.8	17.3	78.8	11.5	9.6	36.5	42.3

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
Response	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
Key	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
145. Perform erythrocyte sedimentation rate.	7.8	10.9	28.1	51.6	1.6	7.3	7.3	14.5	70.9			7.3	29.1	63.6	27.3	18.2	25.5	29.1
146. Perform sickle cell preparations.	21.9	12.5	15.6	48.4	1.6	31.8	9.1	2.3	56.8			2.2	24.4	73.3	8.9	11.1	37.8	42.2
147. Perform spinal fluid cell counts.	12.5	14.1	14.1	56.3	3.1	30.0	10.0	8.0	52.0			3.9	11.8	84.3	7.8	5.9	35.3	51.0
148. Perform white blood cell count (WBC).	1.6	12.5	26.6	57.8	1.6	1.8			98.2				14.0	86.0	14.0	8.8	43.9	33.3
149. Examine urine specimens macroscopically.	3.1	10.9	40.6	45.3					100.0		1.7	3.4	22.1	72.4	25.9	22.4	27.5	24.1
150. Examine urine specimens microscopically.	1.6	12.5	23.4	60.9	1.6				100.0				18.3	81.7	20.0	10.0	38.3	31.7
151. Perform acetone or ketone tests.	4.7	10.9	32.8	45.3	6.3	3.7		3.7	92.6		1.9		27.8	70.4	24.1	22.2	25.9	27.8

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
152. Perform Addis counts.	43.8	7.8	6.3	23.4	18.8	63.6			36.4		4.3	17.4	13.0	65.2	8.7	4.3	34.8	52.2
153. Perform Bence-Jones protein tests.	32.8	9.4	10.9	37.5	9.4	62.9			37.1		2.2	2.9	29.4	64.7	8.3	8.3	47.2	36.1
154. Perform bile tests.	9.4	12.5	26.6	45.3	6.3	13.7		2.0	84.3		2.0	2.0	27.5	68.6	31.4	9.8	27.5	31.4
155. Perform bilirubin tests.	1.6	12.5	23.4	60.9	1.6	3.4	1.7	5.1	89.8		1.7		18.6	79.7	20.3	8.5	35.6	35.6
156. Perform true glucose tests.	1.6	15.9	27.0	54.0	1.6	8.6	5.2	3.4	82.8				19.3	80.7	19.0	10.3	37.9	32.8
157. Perform urine hemoglobin (blood) test.	3.2	11.1	33.3	50.8	1.6	16.4		3.6	80.0				28.1	71.9	26.3	14.0	26.3	33.3
158. Perform pH tests.	9.4	12.5	28.1	46.9	3.1	9.4			90.6		3.8		20.8	75.5	30.2	15.1	22.6	32.1
159. Perform porphyrins tests.	35.5	11.3	6.5	29.0	17.7	36.0	8.0	4.0	52.0				36.0	64.0	8.0	8.0	36.0	48.0
160. Perform pregnancy tests.	7.8	10.9	23.4	56.3	1.6	3.6	10.9	20.0	65.5				18.5	81.5	18.2	10.9	34.5	36.4
161. Perform qualitative urine protein tests.	12.5	12.5	32.8	39.1	3.1	2.0		8.0	90.0			2.1	14.6	83.3	28.6	18.4	24.5	28.6
162. Perform urine reducing substance.	15.6	10.9	29.7	37.5	6.3	12.8		4.3	83.0			4.4	20.0	75.6	18.8	16.7	29.2	35.4

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key
Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
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Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
163. Perform specific gravity tests.	1.6	10.9	43.8	43.8		1.7		5.0	93.3		1.7	3.3	35.0	60.0	36.7	18.3	23.3	21.7
164. Perform urobilinogin tests.	7.8	14.1	29.7	45.3	3.1	3.7		9.3	87.0	1.9			29.6	68.5	24.1	14.8	29.6	31.5
165. Perform acid phosphatase test.	18.8	1.25	10.9	53.1	4.7	20.5	6.8	6.8	65.9				18.2	81.8	6.8	6.8	40.9	45.5
166. Perform serum albumin tests.	20.3	9.4	14.1	50.[illegible]	6.3	4.9	2.4	4.9	87.8				14.3	85.7	12.5	5.0	40.0	42.5
167. Perform A/G ratio.	26.6	7.8	12.5	40.6	12.5	5.6	2.8		91.7				11.8	88.2	11.1	5.6	36.1	47.2
168. Perform alkaline phosphatase test.	10.9	14.1	15.6	54.7	4.7	7.8	2.0	7.8	82.4				14.3	85.7	9.8	5.9	41.2	43.1
169. Perform amylase test.	14.1	14.1	12.5	51.6	7.8	10.2	6.1	8.2	75.5			2.0	16.3	81.6	10.2	6.1	40.8	42.9

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
170. Perform barbituate-level test.	46.9	9.4		18.8	25.0	17.6		29.4	52.9					100.0	11.8	5.9	17.6	64.7
171. Perform bromosulphalein retention (BSP) tests.	49.2	1.6	4.8	15.9	28.6	36.4	9.1		54.5			9.1	27.3	63.6			54.5	45.5
172. Perform calcium tests.	14.1	12.5	12.5	53.1	7.8	6.4	4.3	6.4	83.0			2.1	12.8	85.1	3.5	4.3	46.8	40.4
173. Perform carbon dioxide determinations.	20.3	9.4	17.2	43.8	9.4	2.3	2.3	2.3	93.2				13.6	65.4	9.1	9.1	43.2	38.6
174. Perform cephalin flocculations.	53.1	1.6	3.1	10.9	31.3	12.5			87.5				25.0	75.0			62.5	37.5
175. Perform chlorides tests.	17.2	10.9	15.6	46.9	9.4		4.3	6.5	89.1				15.2	84.8	10.9	8.7	41.3	39.1
176. Perform total cholesterol tests.	9.5	12.7	15.9	55.6	6.3	4.0	6.0	8.0	82.0				12.5	87.5	12.9	4.0	46.0	38.0
177. Perform creatine tests.	28.1	9.4	15.6	34.4	12.5		5.7	2.9	91.4				14.3	85.7	11.4	2.9	40.0	45.7
178. Perform creatine phosphokinase (CPK) tests.	10.9	17.2	17.2	48.4	6.3	6.0	6.0	8.0	80.0				16.7	83.3	10.0	6.0	46.0	38.0
179. Perform serum creatine tests.	31.7	6.3	15.9	30.2	15.9	3.2	3.2	90.3	3.2				13.3	86.7	13.3	3.3	36.7	46.7
180. Perform blood alcohol tests.	43.8	7.8	3.1	13.8	26.6	35.3			64.7					100.0		5.9	23.5	70.6

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
181. Perform enzyme analysis tests.	11.5	16.4	16.4	49.2	6.6	4.1		2.0	93.9		2.0		8.2	89.9	8.2	8.2	42.9	40.8
182. Perform gastric analysis (e.g. activity or Diagnex Blue).	36.1	6.6	8.2	27.9	21.3	52.0	8.0	16.0	24.0			8.0	20.0	72.0	8.0	12.0	24.0	56.0
183. Perform glucose tolerance tests.	3.3	14.8	19.7	60.7	1.6	19.6	10.7	14.3	55.4		1.8		14.3	83.9	10.7	7.1	37.5	44.6
184. Perform serum glutamic oxalacetic transaminase (SGOT) test.	11.5	13.1	19.7	49.2	6.6	2.1		4.2	93.8				16.7	83.3	10.4	8.3	37.5	41.7
185. Perform serum glutamic pyruvic transaminase (SGPT) test.	13.1	13.1	16.4	49.2	8.2		6.5	8.7	84.8				17.4	82.6	6.5	8.7	39.1	43.5
186. Perform icterus index tests.	55.7	8.2		8.2	27.9	25.0	12.5	50.0	12.5		14.3		42.9	42.9	14.3	14.3	42.9	28.5
187. Perform lactic dehydrogenase (LDH) tests.	13.1	11.5	18.0	47.5	9.8		2.2	2.2	95.6				13.3	86.7	8.9	4.4	42.2	44.4

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
188. Perform lipase tests.	36.1	4.9	6.6	26.2	26.2	8.7	8.7	13.0	69.6			4.5	31.8	63.6		13.0	52.2	34.8
189. Perform blood oxygen tests.	44.3	9.8	3.3	19.7	23.0	15.0		10.0	75.0				15.8	84.2		5.0	45.0	50.0
190. Perform blood pH tests.	41.0	9.8	3.3	23.0	23.0	13.6		9.1	77.3				14.3	85.7		4.5	40.9	54.5
191. Perform phenosulfonphthalein (PSP) excretion tests.	52.5		4.9	8.2	34.4	50.0			50.0			14.3	28.6	57.1	12.5	25.0	25.0	37.5
192. Perform phosphorus tests.	19.7	9.8	14.8	44.3	11.5	7.5	2.5	5.0	85.0				23.1	76.9	7.5	5.0	50.0	37.5
193. Perform potassium determinations.	11.7	11.7	20.0	50.0	6.7	2.1		4.3	93.6				17.4	82.6	10.6	12.8	38.3	38.3
194. Perform urine prophyrin and/or prophobilirogen tests.	36.1	9.8	8.2	21.3	24.6	25.0	4.2	16.7	54.2			4.3	30.4	65.2	8.3	12.5	37.5	41.7
195. Perform slide or tube test for pregnancy.	8.2	11.5	26.2	52.5	1.6	9.4	7.5	17.0	66.0				19.2	80.8	13.2	13.2	37.7	35.8
196. Perform total protein tests.	14.8	9.8	26.2	42.6	6.6	2.2	2.2	2.2	93.5				22.2	77.8	13.0	10.9	45.7	30.4
197. Perform salicylate-level tests.	31.1	13.1	4.9	31.1	19.7	23.3	6.7	20.0	46.7				17.2	82.8	6.9	10.3	41.4	41.4
198. Perform sodium determinations.	11.5	9.8	19.7	47.5	11.5			4.3	95.7				22.2	77.8	13.0	15.2	41.3	30.4

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
199. Perform thymol turbidity tests.	56.7	1.7	3.3	1.7	36.7	66.7	33.3							100.0			66.7	33.3
200. Perform blood urea nitrogen (BUN) tests.	8.3	10.0	23.3	55.0	3.3	3.9	5.9		90.2				15.7	84.3	9.8	13.7	45.1	31.4
201. Centrifuge and separate serum from a clot.		10.0	48.3	41.7		1.7			98.3		1.7		22.4	75.9	44.8	13.8	22.4	19.0
202. Check and record temperatures of refrigerators and/or alarms.	5.0	15.0	31.7	48.3					100.0		1.9		20.4	77.8	40.4	11.5	17.3	30.8
203. Crossmatch blood.	16.7	18.3	6.7	40.0	18.3		10.8	10.8	78.4				7.7	52.3	2.6	7.7	33.3	56.4
204. Dispose of unused blood after expiration time limit.	26.7	18.3	10.0	25.0	20.0	9.7	6.5	6.5	77.4		3.2		12.9	83.9	6.5	9.7	25.8	58.1
205. Maintain blood inventory; count number of bottles on hand.	20.0	16.7	6.7	38.3	18.3	5.4		2.7	91.9				10.8	89.2	13.5	10.8	21.6	54.1

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	a
206. Order blood by phone from suppliers.	21.7	16.7	11.7	31.7	18.3	2.8	2.8	22.2	72.2			2.8	13.9	83.3	19.4	5.6	22.2	52.8
207. Organize and store blood.	23.3	18.3	10.0	30.0	18.3	2.8		11.1	86.1			2.8	11.1	86.1	8.3	11.1	27.8	52.8
208. Perform antibody screen and identification tests.	16.7	21.7	5.0	36.7	20.0		10.5	13.2	76.3				10.5	89.5	2.6	2.6	39.5	55.3
209. Perform direct and indirect Coombs tests.	18.3	15.0	10.0	46.7	10.0	4.9	4.9	14.6	75.6				9.8	90.2	4.9	2.4	41.5	51.2
210. Perform genotype of blood.	38.3	16.7	5.0	16.7	23.3	13.6		4.5	81.8				9.1	90.9		9.1	31.8	59.1
211. Perform transfusion reaction studies.	20.0	20.0	3.3	35.0	21.7	25.7	8.6		65.7				11.4	88.6	2.9	5.7	28.6	62.9
212. Prepare and read slide agglutination reactions.	25.0	18.3	13.3	30.0	13.3	2.9		20.0	77.1				11.4	88.6	8.6	5.7	31.4	54.3
213. Prepare and read tube agglutination reactions.	16.7	18.3	8.3	46.7	10.0	4.8		16.7	78.6				9.5	90.5	4.8	4.8	33.3	57.1
214. Record information on blood record card.	18.3	21.7	5.0	35.0	20.0	8.3		11.1	80.6				16.7	83.3	8.3	2.8	36.1	52.8
215. Test blood for ABO grouping and ABO subgrouping.	10.0	15.0	10.0	55.0	10.0	10.2	6.1	12.2	69.4				18.8	81.3	8.3	10.4	29.2	52.1
216. Test blood for Rh or Du factors.	10.0	15.0	6.7	58.3	10.0	6.3	10.4	12.5	70.8				16.7	83.3	8.3	8.3	33.3	50.0

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key

Performance..... 1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
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Training........ a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
217. Stain pap smears.	49.2	9.8	3.3	13.1	24.6	6.7			93.3				20.0	80.0	33.3	13.3	20.0	33.3
218. Assign personnel to duty positions.	13.1	36.1	1.6	37.7	11.5	14.3	9.5	16.7	59.5			2.4	11.9	85.7	7.1	2.4	9.5	81.0
219. Assign space for equipment and supplies.	8.2	34.4	3.3	45.9	8.2	21.3	12.8	12.8	53.2	2.1	2.1	6.4	14.9	74.5	14.9	4.3	17.0	63.8
220. Assign specific work to individuals.	13.1	36.1		39.3	11.5	4.8	4.8	16.7	73.8		4.8		11.9	83.3	7.1	2.4	19.0	71.4
221. Assure the availability of equipment and supplies.	8.2	37.7	1.6	45.9	6.6	14.3	2.0	20.4	63.3		4.1		14.3	81.6	14.3	2.0	22.4	61.2
222. Develop or improve work methods.	11.5	39.3	1.6	45.9	1.6	8.2	22.4	16.3	51.0	2.0		2.0	16.3	79.6	6.3	4.2	20.8	68.8
223. Develop or improve laboratory procedures.	11.5	37.7		1.6	49.2	16.0	24.0	12.0	48.0				20.0	80.0	8.0	4.0	16.0	72.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
224. Develop or revise the organization of the section.	18.0	34.4		39.3	8.2	40.5	14.3	14.3	31.0		2.4		16.7	81.0	7.1	2.4	7.1	83.3
225. Establish procedures for special tests.	13.1	36.1		45.9	4.9	43.5	26.1	10.9	19.6				15.2	84.8	6.5		10.9	82.6
226. Establish quality control function.	11.5	36.1		49.2	3.3	14.3	18.4	12.2	55.1				6.1	93.9	4.1	4.1	12.2	79.6
227. Establish work priorities and schedule work assignments.	16.4	29.5	1.6	44.3	8.2	14.0	11.6	7.0	67.4		4.7		11.6	83.7	9.3	2.3	11.6	76.7
228. Plan and schedule work assignments.	18.0	32.8	1.6	39.3	8.2	11.9	16.7	11.9	59.5		4.8		14.3	81.0	9.5	2.4	9.5	78.6
229. Plan record keeping for the section.	14.8	34.4	6.6	39.3	4.9	13.0	28.3	6.5	52.2		2.2	2.2	17.4	78.3	6.5	2.2	17.4	73.9
230. Plan work flow.	19.7	32.8		39.3	8.2	14.6	17.1	14.6	53.7		2.4		14.6	82.9	7.5	2.5	17.5	72.5
231. Requisition supplies.	11.5	31.1	9.8	44.3	3.3	2.0	4.1	55.1	38.8			2.1	18.8	79.2	16.7	6.3	18.8	58.3
232. Requisition equipment.	11.5	36.1		37.5	4.9	64.6	8.3	6.3	20.8			2.1	18.8	79.2	6.3	2.1	18.8	72.9
233. Direct the maintenance and utilization of equipment.	11.7	36.7		51.7		12.0	10.0	18.0	60.0				18.0	82.0	8.0	2.0	22.0	68.0
234. Direct the maintenance and utilization of supplies.	13.3	38.3		48.3		10.6	10.6	14.9	63.8				19.1	80.9	6.4	6.4	21.3	66.0

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
235. Direct subordinates in maintaining performance standards.	13.1	36.1	1.6	42.6	6.6	7.0	7.0	14.0	72.1				10.9	89.1	6.8	2.3	15.9	75.0
236. Communicate laboratory findings to physicians.	3.3	26.2	1.6	67.2	1.6	3.6		3.6	92.9			1.8	8.9	89.3	7.4	3.7	14.8	74.1
237. Explain laboratory findings to physicians.	9.8	31.1	3.3	52.5	3.3	17.6		3.9	78.4			3.9	5.9	90.2	8.0	2.0	12.0	78.0
238. Explain laboratory tests to physicians.	13.3	33.3	1.7	50.0	1.7	20.4	8.2	4.1	67.3			4.1	10.2	85.7	8.5	2.1	10.6	78.7
239. Explain laboratory tests to hospital staff.	19.7	27.9	3.3	36.1	13.1	25.6	12.8	5.1	56.4			10.3	7.7	82.1	7.9	2.6	15.8	73.7
240. Explain laboratory tests to patients.	25.0	16.7	10.0	33.3	15.0	21.2		15.2	63.6		3.0	9.1	15.2	72.7	12.5	9.4	28.1	50.0
241. Instruct patients regarding laboratory findings.	49.2	11.5	3.3	11.5	24.6	23.1		15.4	61.5		8.3	25.0	16.7	50.0	9.1		27.3	63.6

		1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
242.	Determine if equipment repair is needed.	6.6	23.0	1.6	63.9	4.9	30.6	4.1	12.2	53.1		2.0	2.0	14.3	81.6	18.8	8.3	14.6	58.3
243.	Evaluate the accuracy and adequacy of routine reports.	8.2	27.9	1.6	57.4	4.9	12.2	4.1	4.1	79.6		2.0		10.2	87.8	10.4	6.3	18.8	64.6
244.	Evaluate the maintenance and use of equipment.	8.2	32.8		59.0		13.5	19.2	7.7	59.6		3.8		17.3	78.8	11.8	2.0	21.6	64.7
245.	Evaluate the maintenance and use of supplies.	11.7	36.7	1.7	50.0		10.6	14.9	8.5	66.0		2.1	2.1	12.8	83.0	15.2	2.2	19.6	63.0
246.	Evaluate the maintenance and use of work space.	14.8	31.1	1.6	45.9	6.6	22.7	18.2	6.8	52.3		2.3	4.5	13.6	79.5	11.4	6.8	11.4	68.2
247.	Evaluate work performance of subordinates.	14.8	36.1	1.6	44.3	3.3	21.7	23.9		54.3				8.7	91.3	8.7	2.2	15.2	73.9
248.	Initiate reports on unsatisfactory equipment.	15.0	21.7	5.0	51.7	6.7	47.7	6.8	6.8	38.6	2.3			11.6	86.0	16.3	4.7	18.6	60.5
249.	Resolve technical problems of subordinates.	15.0	35.0		46.7	3.3	28.3	6.5	15.2	50.0				8.7	91.3	6.7	2.2	20.0	71.1
250.	Select textbooks and library reference materials.	19.7	31.1	1.6	42.6	4.9	51.2	18.6	2.3	27.0		2.3	4.7	16.3	76.7	4.8	4.8	23.8	66.7
251.	Log incoming or outgoing specimens.	4.9	19.7	36.1	37.7	1.6			5.9	94.1			2.0	21.6	76.5	38.0	14.0	18.0	30.0
252.	Maintain and revise stock levels.	8.2	18.0	14.8	50.8	8.2	12.2	10.2	22.4	55.1		2.0	2.0	30.6	65.3	14.6	14.6	29.2	41.7

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
253. Maintain files of laboratory records or reports.	10.3	29.3	31.0	29.3				4.0	96.0	2.0			16.0	82.0	42.0	10.0	26.0	22.0
254. Purchase or requisition supplies.	10.3	24.1	6.9	53.4	5.2		6.5	52.2	41.3			2.2	23.9	73.9	21.7	8.7	19.6	50.0
255. Receive incoming supplies.	10.3	24.1	25.9	39.7			6.1	49.0	44.9		4.1	2.0	26.5	67.3	38.8	18.4	18.4	24.5
256. Supervise the maintenance of laboratory supplies.	10.3	32.8	6.9	48.3	1.7		2.2	33.3	64.4			2.2	20.0	77.8	15.6	13.3	26.7	44.4
257. Consult with health professionals on purchasing, constructing, or using special appliances.	13.8	32.8	1.7	46.6	5.2	54.5	15.9	2.3	27.3		4.5	13.6	22.7	59.1	9.5	7.1	23.8	59.5
258. Maintain standards of employee's personal hygiene as related to job performance.	17.9	21.4	3.6	46.4	10.7	44.4	8.3	2.8	44.4	2.8	2.8	5.6	11.1	77.8	5.6	16.7	8.3	69.4
259. Inform personnel of new or changed policies and procedures.	12.1	36.2		48.3	3.4	33.3	13.3	11.1	42.2		2.2		20.0	77.8	15.6	8.9	15.6	60.0

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
260. Develop hospital disaster plan.	39.7	27.6		19.0	13.8	50.0	36.4		13.6			4.0	28.0	68.0	4.5		4.5	90.9
261. Attend meetings and participate in community activities related to doctor's practice.	31.0	19.0	1.7	20.7	27.6	58.3	16.7	4.2	20.8			20.8	16.7	62.5	12.5	8.3	12.5	66.7
262. Arrange meetings, conferences, or travel accommodations.	34.5	29.3		17.2	19.0	50.0	33.3		16.7			7.4	29.6	63.0	12.5		12.5	75.0
263. Train volunteers in specific techniques.	37.9	15.5	1.7	15.5	29.3	50.0	22.2		27.8			11.1	22.2	66.7	5.6	5.6	38.9	50.0
264. Conduct tours of facilities.	32.8	15.5	5.2	22.4	24.1	59.1		18.2	22.7		4.8	23.8	33.3	38.1	9.1	18.2	18.2	54.5
265. Assist patient into and out of bed.	46.6	6.9	8.6	8.6	29.3	50.0			50.0	10.0		20.0	10.0	60.0	20.0	50.0	10.0	20.0
266. Transport patient on stretcher or wheelchair.	48.3	5.2	6.9	10.3	29.3	36.4		9.1	54.5		9.1	18.2	9.1	63.6	18.0	4[illegible].5	[illegible]	36.4
267. Assist in resolving patient complaints.	36.2	32.8	3.4	6.9	20.7	41.2	5.9	5.9	47.1			11.1	11.1	77.8	6.7		33.3	60.0
268. Explain fees to patient.	43.1	19.0	3.4	12.1	22.4	21.4	7.1	7.1	64.3		6.7	13.3		80.0	20.0	6.7	46.7	26.7
269. Observe negative or positive physical and emotional responses to treatments, medications, or nursing care.	46.6	6.9	6.9	6.9	32.8	10.0	20.0	30.0	40.0		10.0			90.0	20.0	10.0	50.0	20.0
270. Maintain record of all requests for patient information.	41.4	12.1	12.1	6.9	27.6				100.0			6.7	20.0	73.3	13.3	33.3	33.3	20.0

OCCUPATIONAL ANALYSIS: Medical Laboratory Services

Response Key	Performance.....	1 No One 2 Other Employee 3 Medical Lab Assistant 4 Medical Lab Technician 5 (Disregard)
	Use Frequency...	I Infrequently (less than monthly) M Monthly W Weekly D Daily
	Importance......	1 No Importance 2 Little Importance 3 Undecided 4 Some Importance 5 Much Importance
	Training........	a On-the-Job b Secondary (HOE) c Postsecondary d Postsecondary (degree/certificate)

Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
271. Prepare patient record folder or chart.	39.0	16.9	5.1	11.9	27.1	20.0	6.7	6.7	66.7			6.7	26.7	66.7	6.7	33.3	33.3	26.7
272. Prepare requests for vacation and sick leave.	21.7	33.3	1.7	26.7	16.7	36.4	15.2	12.1	36.4			9.1	33.3	57.6	12.5	9.4	21.9	56.3
273. Operate office business machines.	30.5	30.5	8.5	8.5	22.0	8.3	8.3		83.3			4.2	41.7	54.2	44.0	20.0	20.0	16.0
274. Maintain a fee schedule for services.	29.5	29.5	1.6	18.0	21.3	22.2	3.7		74.1			3.7	25.9	70.4	7.4	7.4	40.7	44.4
275. Transcribe physician's orders.	41.7	16.7	1.7	10.0	30.0	14.3	7.1		78.6				14.3	85.7	7.1	7.1	57.1	28.6
276. Follow established procedures for processing authorization forms including autopsy, surgery, diagnostic tests, and discharge forms.	38.3	18.3	6.7	10.0	26.7			11.1	88.9			5.6	16.7	77.8	33.3	11.1	33.3	22.2
277. Adjust side rails and height of bed.	48.3	8.6	6.9	5.2	31.0	12.5			87.5		12.5		25.0	62.5	12.5	50.0	25.0	12.5

	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
278. Assay wet chemical solutions for activity and contaminants.	40.0	16.7	3.3	16.7	23.3	15.8	15.8	21.1	47.4				15.8	84.2	10.5	10.5	31.6	47.4
279. Take and process X-rays.	45.9	3.3	3.3	16.4	31.1	8.3			91.7				25.0	75.0	16.7	8.3	33.3	41.7
280. Adjust voltage, amperage, and timer of X-ray machine.	46.7	3.3	3.3	15.0	31.7	9.1	9.1	9.1	72.7				18.2	81.8	18.2	9.1	36.4	36.4
281. Maintain daily production record.	39.3	13.1	6.6	18.0	23.0	5.0	10.0	5.0	80.0		5.0	5.0	30.0	60.0	45.0	5.0	35.0	15.0
282. Assist with or apply rib belts.	55.0	6.7			38.3	50.0			50.0					100.0			100.0	
283. Assist in obtaining tissue specimens.	51.7	6.7	3.3	8.3	30.0	28.6	14.3		57.1					100.0	28.6		42.9	28.6
284. Monitor EKG graph for abnormal or erratic tracings.	50.0	5.0	1.7	8.3	35.0	28.6		14.3	57.1			14.3		85.7	28.6	14.3	14.3	42.9
285. Describe the nature of patient's illness or injury.	51.7	8.3	1.7	6.7	31.7	16.7			83.3				16.7	83.3	16.7		33.3	50.0
286. Take X-rays of ribs and sternum or extremities.	45.9	3.3	3.3	13.1	34.4		10.0	10.0	80.0				30.0	70.0	22.2	11.1	33.3	33.3
287. Assist with laminograms, mammograms, chlogiograms, intravenous pyelograms, and IV's.	51.7	1.7	3.3	8.3	34.0	28.6	14.3	28.6	28.6				14.3	85.7	14.3	14.3	42.9	28.6
288. Assist with upper GI series, stereoscopic X-rays, ventricueograms.	52.5	1.6	3.3	6.6	36.1			16.7	83.3					100.0	16.7	16.7	33.3	33.3

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Competency Statement	Performance					Use Frequency				Importance					Training			
	1	2	3	4	5	I	M	W	D	1	2	3	4	5	a	b	c	d
289. Assist with X-rays for contrast studies of large bowel or colon and esophagus.	53.2	6.5	3.2	4.8	32.3			50.0	50.0					100.0	50.0		25.0	25.0
290. Minimize hazards throughout the health care facility.	36.1	21.3	6.6	19.7	16.4	16.0	8.0	12.0	64.0				8.0	92.0	20.0	16.0	28.0	36.0
291. Operate and adjust examining tables.	50.0	8.6		5.2	36.2	16.7			83.3		33.3		16.7	50.0	16.7	50.0	33.3	
292. Prepare instruments for sterilization (chemical, autoclaving, dry heat).	48.3	11.7	3.3	5.0	31.7	11.1		11.1	77.8		11.1		22.2	66.7	44.4		44.4	11.1
293. Organize storage areas for equipment, supplies, and drugs.	25.0	18.3	18.3	18.3	20.0	14.3	21.4	21.4	42.9		7.1	3.6	39.3	50.0	35.7	17.9	28.6	17.9
294. Other Competencies (List Below)																		

APPENDIX J

COMMON (GENERIC) COMPETENCIES

COMMON (GENERIC) COMPETENCIES

1. Interview, evaluate, or hire prospective personnel
2. Interpret patient's signs, symptoms, and behaviors
3. Inform personnel of potential hazards in their working areas
4. Inform personnel of new or changed policies and procedures
5. Handle telephone calls
6. Have an understanding of fire prevention and control
7. Give "on-the-job" instruction
8. Explain fees to patient
9. Establish work priorities and schedule work assignments
10. Dispose of contaminated materials and equipment
11. Direct patient to project completion by praise and encouragement
12. Determine if equipment needs repair
13. Consult with health professionals on purchasing, constructing, or using special appliances
14. Clean and maintain service area and equipment within area of responsibility
15. Attend to patient's comfort before, during, and after examination, tests, or treatment
16. Attend meetings and participate in community activities related to doctor's practice
17. Attend and participate in staff meetings
18. Assist in the orientation of volunteers, students, and new staff
19. Assist in establishing a comfortable relationship between the patient and the health care professional
20. Advise health professionals on the technicalities and procedures involved in operating special equipment

21. Teach safety techniques as needed

22. Take x-rays (dental, abdominal, spinal, chest, etc.)

23. Seek guidance to improve performance in patient care

24. Record and chart vital signs and/or other conditions as directed by health care professional

25. Receive patients, explain their tests and procedures, and allay their fears

26. Provide liaison between doctor and other professional associates

27. Prepare statistical reports

28. Prepare patient record folder

29. Prepare instruments for sterilization (chemical, autoclaving, dry heat)

30. Practice established routines and policies of the health care facility

31. Participate in or conduct demonstrations of procedures and equipment; conduct in-service

32. Orient new personnel to unit facilities, routines, and other personnel

33. Organize storage areas for equipment, supplies, and drugs

34. Operate office business machines

35. Open sterile packages and packs

36. Maintain a fee schedule for services

37. Maintain record of all requests for patient information

38. Maintain standards of employees' personal hygiene as related to job performance

39. Observe negative or positive physical and emotional responses to treatments

40. Observe patient's general physical condition, appearance, and behavior

41. Obtain charts of patients for whom information is requested

42. Obtain information from patient or family

43. Assist in resolving patient complaints

44. Insure that all subordinates are on duty

45. Minimize hazards throughout the health care facility